THEMODERATING ROLE OF BOARD OWNERSHIP ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND FIRM PERFORMANCE AMONG THE LISTED COMPANIES IN JORDAN

ALMONTASER ABDALLAH MOHAMMAD QADORAH

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ALMONTASER ABDALLAH MOHAMMAD QADORAH

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Tarikh: **16 April 2019**
(Date)

Nama Pelajar (Name of Student)	:	Almontaser Abdallah Mohammad Qadorah
Tajuk Tesis / Disertasi *(Title of the Thesis / Dissertation)*	:	**The moderating role of board ownership on the relationship between corporate governance and firm performance among the listed companies in Jordan**
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ABSTRACT

This study investigates the influence of corporate governance mechanisms on firm performance in Jordanian listed firms. It also explores the moderating impact of board ownership on the relationship between board of directors' characteristics (i.e., board size, board independence, CEO duality, board meetings) and firm performance. Firm performance is measured using return on assets (ROA) and Tobin's Q. This study covers 90 listed firms on the Amman Stock Exchange (ASE) from 2014 to 2016 (N = 270). Hierarchical regression analysis is employed to examine if board ownership moderates the relationship between board of directors' characteristics and firm performance. The findings show that board independence, Chief Executive Officer's (CEO) duality, board meetings, managerial ownership, foreign ownership, audit committee presence and audit firm size are significantly and positively related to ROA. However, institutional ownership, family ownership and audit fees are significantly and negatively related to ROA. The findings also show that board independence, board meetings, managerial ownership, foreign ownership, family ownership, audit committee presence and audit firm size are significantly and positively related to Tobin's Q. However, board size and institutional ownership are significantly and negatively related to Tobin's Q. In addition, the results show that board ownership moderates the relationship between the board of directors' characteristics and firm performance for both models (ROA and Tobin's Q). The findings indicate that the interaction of board ownership and board of directors' characteristics is significantly and negatively related to firm performance. This study concludes that good corporate governance mechanisms play a key role in improving the performance of firms. The current study presents practical evidence to the policymakers, academicians and all related parties in emerging markets, specifically in Jordan.

Keywords: Corporate Governance, Board Ownership, Firm Performance, Amman Stock Exchange, Jordanian Firms

ABSTRAK

Kajian ini menyelidik pengaruh mekanisme tadbir urus korporat terhadap prestasi firma di firma-firma yang tersenarai di Jordan, di samping meneroka kesan penyederhanaan pemilikan lembaga ke atas hubungan antara ciri-ciri lembaga pengarah (seperti saiz dan kebebasan lembaga, kedualan ketua pengarah eksekutif (CEO), mesyuarat lembaga) dan prestasi firma. Prestasi firma diukur menggunakan pulangan ke atas aset (ROA) dan *Tobin's Q*. Kajian ini mencakupi 90 buah firma yang tersenarai dalam Bursa Saham Amman (ASE) daripada tahun 2014 hingga 2016 (N= 270). Analisis regresi berhierarki digunakan untuk menyelidik sekiranya pemilikan lembaga menyederhanakan hubungan antara ciri-ciri lembaga pengarah dan prestasi firma. Hasil kajian menunjukkan bahawa kekebasan lembaga, kedualan ketua pengarah eksekutif (CEO), mesyuarat lembaga, pemilikan pengurusan, pemilikan asing, kehadiran jawatankuasa audit dan saiz firma audit berkaitan secara signifikan dan positif dengan ROA.Walau bagaimanapun, pemilikan keinstitusian, pemilikan keluarga dan yuran audit berkait secara signifikan dan negatif dengan ROA. Hasil kajian juga menunjukkan kebebasan lembaga, mesyuarat lembaga, pemilikan pengurusan, pemilikan asing, pemilikan keluarga, kehadiran jawatankuasa audit dan saiz firma berkaitan dengan *Tobin's Q* secara signifikan dan positif. Namun, saiz lembaga dan pemilikan keinstitusian pulaberkait dengan *Tobin's Q* secara signifikan dan negatif. Tambahan pula, hasil kajian juga menunjukkan bahawa pemilikan lembaga menyederhanakan hubungan antara ciri-ciri lembaga pengarah dan prestasi firma bagi kedua-dua model (ROA dan *Tobin's Q*). Hasil kajian menunjukkan bahawa interaksi pemilikan lembaga dan ciri-ciri lembaga pengarah berkait secara signifikan dan negatif dengan prestasi firma. Kajian ini menyimpulkan bahawa mekanisma tadbir urus yang baik memainkan peranan penting dalam meningkatkan prestasi firma. Kajian ini memberikan bukti yang praktikal kepada penggubal dasar, ahli akademik dan pihak-pihak yang berkenaan dalam pasaran baharu, terutamanya di Jordan.

Kata kunci: tadbir urus korporat, pemilikan lembaga, prestasi firma, Bursa Saham Amman, firma-firma di Jordan

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LIST OF ABBREVIATIONS

ASE	Amman Stock Exchange
CEO	Chief Executive Officer
EBRD	European Bank for Reconstruction and Development
EGX	Egyptian Stock Exchange
EU	European Union
FGLS	Feasible Generalized Least Square
GDP	Gross Domestic Product
HOSE	Ho Chi Minh City Stock Exchange
IAASB	International Auditing and Assurance Standards Board
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IOSCO	International Organization for Securities Commissions
JACPA	Jordanian Association of Public Accountants
JCGC	Jordan Corporate Governance Code
JD	Jordan Dinar
JSC	Jordan Securities Commission
KSE	Karachi Stock Exchange
MENA	Middle Eastern and North African
NSE	National Stock Exchange
OECD	The Organization for Economic Co-operation and Development
POB	Public Oversight Board

ROA	Return on Assets
SDC	Securities Depository Centre
SMEs	Small and Medium Sized Enterprises
UK	United Kingdom
US	United State
WTO	World Trade Organization

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In today's extremely dynamicand competitive business environment, high performance remains the most significant guarantee of firms' survival. Generally, a firm's ability to successfully achieve higher financial and superior business performance will be beneficial in terms of attracting potential and current investors and enjoying economies of scale. More importantly, the investors would want to invest in firms according to their prior evaluation of the firms' performance indicators. Investors will, therefore, place the greatest trust in such firms over other firms.

Furthermore, firms with strong markets and high financial performance will remain the most conducive environment for investors. Therefore, it is critical for the management, stakeholders and decision-makers to understand the critical benefits of business operations to enhance financial performance (Al-Matari, Al-Swidi, & Fadzil, 2014). Such benefits are vital not only for the firm but also for the firm's business customers and investors (Sayyar, Basiruddinb, Rasidc, & Elhabibd, 2015).

With the above explanation, the issue of firm performance has become a key concern among business and management accounting managers, specifically after the crisis of Asian financial in 1997, moreover, to the global meltdown following the subprime mortgage crisis of 2007 through to 2008 and the numerous corporate scandals in both developed and developing markets around the globe (Enron in

2001, WorldCom in 2002 and Aholdin 2003, among others) (Alabdullah, Yahya, & Ramayah, 2014).

As mentioned by Al-Manaseer, Al-Hindawi, Al-Dahiyat, & Sartawi (2012), businesses all over the world need development and growth in the quest to acquire investments. However, scholars (Khan, Nemati, & Iftikhar, 2011) stated that prior to investing in a specific business, investors often will ensure that a business is financially secure and stable and can generate profits in the long run. Therefore, in cases in which the firm's position is adverse, potential investors would be less interested. This inability to attract enough investment often results in negative consequences for a business, and in turn, for the country's economy as a whole. Hence, countless attention has been directed to corporate governance mechanisms so as to provide proper management practices in firms to protect the interests of investors (Alabdullah, 2016; Alabdullah et al., 2014).

Corporate governance becomes a crucial element of debate of academic and corporate sector. The main reason behind the importance of corporate governance is the compliance of ethical and moral standards in business that is necessary to promote socially acceptable corporate governance. It is understood that the day to day activities and major decisions of organizations can be done in a tunnel. The top management or directors work as the brain of the organization and take part in the process of decision making of the organization. For that reason, it is quite possible that top management hastheir own goals that are not aligned with the organizational goals. When managers and directors work for their own separate goals rather focus on the stakeholders and society goals then this behavior of top management will affect the organization negatively (Fama & Jensen 1983). According to Obiyo and Lenee (2011), corporate governance provides guidelines to management, owners as well as external stakeholders about their rights to make decisions and their responsibility and power.

Obiyo and Lenee (2011) argued that some corporate managers are not exercising their full responsibilities, and as such, they are more inclined to fulfil their personal satisfaction rather than driving the firm towards prosperity and survival. In addition to this, in the perspective of emerging markets, corporate governance is gaining more attention due to weak legal systems, which may lead to disputes that can ruin a business and performance outcomes of firms.

Al-Matari, Al-Swidi, and Fadzil (2012); and Baydoun, Maguire, Ryan, and Willett (2012) asserted that inaccurate information, weak supervision and control and the spread of corruption lead to poor firm performance. According to Al-Matari et al. (2012) applying the doctrines of good corporate governance assists in creating the needed precautions against mismanagement and corruption and encourages more transparency in a company's governance. Increased transparency will eradicate resistance to reforms in a company's policies and increase its performance (Baydoun et al., 2012).

Several Arab countries have issued corporate governance charters and instructions, including Jordan (2017); Saudi Arabia (2017); Bahrain (2014); and Egypt (2016). Most of the charters concentrate on significant topics concerning the governing of the shareholders-directors relationship, the directors-management relationship, related-party transactions and the election and appointment criteria of the board of directors. It also includes the requirement for the presence of experts among the member which are non-executive and independent board members, the role of the boarddirectorsand the company's restructuring. In addition, these charters include work ethics and rewards and remuneration policies for management. Furthermore, these charters encapsulate the protection of small shareholders' rights and the promotion of a governance culture. Such policies can enhance corporate governance and the fundamental policies that these corporate governance charters have underlined can increase the quality of governance and the implementation of the long-term goals of the companies involved (Mubarak, 2011).

The collapse of several major companies and financial frauds that have occurred across the globe during the 21st century have stirred uncertainties and raised doubts regarding the credibility of procedure of financial reporting and operations as well as the performance of listed companies in Jordan (Hamdan, 2012). Several professionals, organizations, regulatory bodies and scholars, have suggested reforms and practices that can enhance firm performance, for example, mechanisms and application of corporate governance (Hamdan, Kukrija, Awwad, & Dergham, 2012Ajeela & Hamdan, 2011; Akhidime, 2015;). The Jordanian Association of Public Accountants (JACPA) recommends that Jordanian auditors follow the international accounting and auditing standards. Amman Stock Exchange (ASE) becomes a member of the International Organization of Securities Commissions (IOSCO) in 1997, In 1997. As a member of IOSCO it mandatory for ASE to follow the IFRS called as standards of International Financial reporting and standards of international accounting. Accordingly, Companies Law No. 22 was issued in 1997 has clear instructions for all the listed companies on ASE to prepare the audited annual financial report according to the IFRS. Following this, legislators have passed laws so that public companies would abide by the policies of corporate governance. In 2017, the Corporate Governance Directives for Shareholding

Companies for the ASE listed firms were released by the Jordan Securities Commission (JSC). The directives provide guidelines for the establishment and accountabilities of corporate committees.

Good corporate governance provides several benefits. For example, higher income growth rates are achieved in countries in which better corporate governance is entrenched (Škare & Golja, 2014). The performance of the firm is influenced by the corporate governance which is noticeable and its effect on the overall economic health of corporate organizations and society is also apparent. However, news about corporate governance scandals (British Home Stores, Sports Direct and Wells Fargo) spread all over the world in the year 2017, and consequently, the interests of governments, organizations and researchers, have been reawakened towards re-examining the influence of firm performance by corporate governance, (Ahmed-Haji &Mubaraq, 2015; Baydoun et al., 2012; Marashdeh, 2014). Specifically, in Jordan, increasingly, the attention of the various stakeholders, including the government and investors, has turned towards reforms and practices that can enhance firm performance (Hamdan, 2012).

The weaknesses in corporate governance in developing countries have attracted much attention (Ayandele & Emmanuel, 2013; Mulili & Wong, 2011). Unlike advanced or developed countries, developing countries with emerging markets may possess a well-developed financial infrastructure, but this infrastructure is invariably riddled with less well-developed accounting processes, governance mechanisms, regulations and other financial infrastructure systems, as well as less efficient markets. Consequently, greater uncertainty and risks may emerge (Kearney, 2012). Few challenges being faced by the countries include investor’s low level of perception, high level intervention by the governments, weak legislation, political instability, uncertainty and risk (Isukul & Chizea, 2017). Hence, adopting an effective corporate governance structure is a necessity (Marashdeh, 2014).

Corporate governance quality is related to the degree of law enforcement initiatives. Weak corporate governance practices will reduce business operations, which will directly weaken performance. As such, strong and effective corporate governance mechanisms have to be established. Therefore, for the developing countries, efforts to establish a good corporate governance structure are needed as many are still in dire need of appropriate governance (Ekanayake, Perera, & Perera, 2010). With respect to this issue, Tarraf (2011) concluded that the problem of poor corporate governance practices is one factor that contributed to the financial crises and turbulent times. This is the reason why the subject of corporate governance remains of great interest amongst academicians, in both developed and developing nations (Darwish, 2012).

Many previous studies have documented that weakness in corporate governance leads directly to a decrease in reputation of firm and quality of financial reporting of the firms, which ultimately lead to weaknesses in their financial performance. In fact, studies have noted that the financial performance level among Jordanian firms is very low, and this has raised concerns of the Jordanian regulators and decision-makers (Almajali, Alamro, & Al-Soub, 2012). The low level of firm performance in Jordan has led to a decrease in the level of financial reporting quality and loss of reputation; these have consequently jeopardized the confidence of shareholders and investors in the shareholding firms (Al-Sraheen, Fadzil & Soffian, 2014).

For the examination of effectiveness and efficiency of ownership structure, Jordanian listed firms are a good and preferable subject for study, as these firms have raised concerns with regards to weak corporate governance structures, which in turn, have failed to improve and enhance firm performance. According to the ALzoubi (2016) unlike the developed countries the nature of ownership is prevailing in Jordan is concentrated ownership. Therefore, in Jordanian firms, the ownership structure is a key element of control, as well as firms with a high percentage of board ownership, tend to opt for less disclosure. According to theseevidences, it seems like that Jordanian firms with large board shareholdings are practicing the information retention preposition to seek rent from other stakeholders (Sartawi, Hindawi, Bsoul, & Ali, 2014).

With regards to the current status of board ownership in Jordan, as in other emerging economies, numerous empirical studies provide strong evidence of the existence of high board ownership. Al-Sraheen (2014) claims that board ownership is relatively high among Jordanian listed firms compared with those in western economies (e.g. US and UK). The study found that board ownership is 48%, on average. The researcherhighlighted the importance of board ownership of companies listed in Jordan, based on the shares as the sum which directors of the board own (Al-Fayoumi, Abuzayed, & Alexander, 2010). They found that mean board ownership of companies was 38%. This reflects a relatively high level of board ownership among Jordanian companies. The outcomes of the above studies reveal the level of board ownership in the Jordanian companies is high. Such a percentage gives the board of directors' great power; therefore, it may have a negative effect on the governance mechanisms.

1.2 Problem Statement

Over the last few years, Jordanian listed firms have been suffering from weak performance (Alabdullah, 2018). Firms in Jordan have been experiencing negative outcomes which have led to a decrease in the level of financial reporting quality and the reputation loss, consequently jeopardizing the confidence of shareholders and investors in these firms (Al-Sraheen et al., 2014). These issues have given rise to shareholders' concerns regarding the urgent need for improvement of corporate governance to meet performance objectives (Almajali et al., 2012).

As mentioned above, the weak performance of Jordanian-listed firms is being attributed to weaknesses in corporate governance practices (Makhlouf, Laili, Ali Basah, & Ramli, 2017). The European Bank for Reconstruction and Development (EBRD) (2017) tried to examine the corporate governance status in Jordan. They found out that, there exists immaturity among the firms of Jordan regarding corporate governance. Abdullatif (2016); Aldaoud (2015); Aldehayyat, Alsoboa, and Al-Kilani (2016); and Al-Sraheen (2014) confirmed these findings. In addition, low-level of firm performance in Jordan has led to the collapse and subsequent liquidation of many firms. The liquidation of firms has been attributed to, among other factors, weak corporate governance practices and weak firm performance (Bawaneh, 2015; Zureigat, 2015). As a way out, recommendations have been made that reforms should be introduced. The recommended reforms include the introduction of conservative principles, effective corporate governance mechanisms and higher-quality audits (Akhidime, 2015).

In 2017, JSC makes it mandatory for all the listed firms must comply with the rules of corporate governance issued in 2009 was not mandatory to follow it was only guidelines for the companies. Chief Commissioner of JSC stated that this change will make the business environment more attractive for international investors and make the financial reports more accurate and reliable.

Jordan's market capitalization of listed companies decreased by 2.2% at the end of 2017, representing 61.8% of the GDP as illustrated in Table 1.1 and Figure 1.2. Furthermore, share prices and the number of listed companies decreased. Therefore, an assessment of the influence of corporate governance implementation and its effects on the performances of Jordanian firms is crucial and needs further research.

Table 1.1
Market Capitalization of Listed Companies by Sector

(JD Million)

Year	Financial	Services	Industry	Total
2013	10,562	3,276	4,395	18,233
2014	11,001	3,389	3,693	18,083
2015	11,132	3,199	3,654	17,985
2016	11,065	2,744	3,531	17,339
2017	10,857	2,654	3,452	16,963

Source: Amman Stock Exchange Annual Report (2017)

Source: Amman Stock Exchange Annual Report (2017)

Figure 1.1. *Market Capitalization of the ASE and its Percentage to the GDP*

The “trading value for the ASE increased during 2017 reaching JD 2.9 billion, an increase of 25.6% compared to JD 2.3 billion for 2016. The number of traded shares reached 1.7 billion shares, traded through 717,000 transactions, compared to 1.8 billion shares traded through 786,000 transactions in 2016” (ASE, 2017).

There are three quarters for the companies of public shareholding in terms of performance of the public shareholding companies for the first three-quarters for 2017, the financial data for 193 companies of the 194 companies that represents the ASE with their reports quarterly, revealed that the before-tax profits of these companies stood at JD 1.09 billion for the period (Jan-Sept. 2017), compared to JD 1.15 billion for the same period of 2016, a decrease of 5.4%. Mr. Nader Azar, the (CEO) Chief Executive Officer in the ASE said that 86 were companies listed in 2015 with net loss compared to 76 companies listed in 2014 (ASE, 2017).

Theoretically, extensive research has been accompanied to inspect the influence of corporate governance onthe firm’s performance. However, the results have been mixed. A comprehensive literature review has found many theoretical gaps, which are addressed in this study.

The literature also reports inconclusive findings of the linked of firm performance and corporate governance, calling for urgent empirical attention to this area. While some empirical studies have supported a direct relationship, others have advocated the existence of an indirect relationship between corporate governance and firm performance (Achim, Borlea, & Mare, 2016; Akbar, Poletti-Hughes, El-Faitouri, & Shah, 2016; Buallay, Hamdan, & Zureigat, 2017; Darweesh, 2015; Zabri, Ahmad, & Wah, 2016). Additionally, studies have also reported no significant relationship between the two (Arora & Sharma, 2012; Manafi, Mahmoudian, & Zabihi, 2015; Pintea & Fulop, 2015).

As the data regarding corporate governance is easily accessible in developed countries, therefore the maximum researches conducted in the past regarding corporate governance is in developed countries (Arora & Sharma, 2016).For the same reason, there are very fewer researches conducted in countries like Jordan and other developing countries. According to the assumptions of the agency theory, the present study proposes board ownership as a moderating variable on the connection of firm performance and corporate governance the following reasons:

The agency theory posits that firms should concentrate on board ownership and other ownership variables to boost their performance (Jensen & Meckling, 1976). Empirical evidence with respects to the link amongfirm performance and corporate governance appears to be inconsistent (Alabdullah, 2018; Alaryan, 2017; Aldehayyat et al., 2016; Al-Matari et al., 2012; Malik & Makhdoom, 2016; Muhammad, Rehman & Waqas, 2016; Orazalin, Makarov, & Ospanova, 2015; Rutledge, Karim, & Lu, 2016; Vakilifard, Ebadzadeh, & Dadbeh, 2015; Yilmaz & Buyuklu, 2016; Al-Matari et al., 2014). Accordingly, Baron and Kenny (1986) recommended that in a relationship between two latent variables, weak or inconsistent results could be revitalized by introducing a moderating variable.

A detail literature review of ownership and firm performance uncovered the two crucial elements namely, entrenchment effect and interest alignment effect (Desoky & Mousa, 2012; Firdaus & Kusumastuti, 2015; Itturalde, Maseda, & Arosa, 2011; Marimuthu, 2017; Park & Jang, 2010; Vintila & Gherghina, 2014).

Hence, the objective and goal of current researchare to find the relationship between corporate governance dimensions (board structure, ownership structure, and audit quality and audit committee). The current research also investigated the moderating role of board ownership on the proposed relationships of the study to fulfill the existing literature gap.

1.3 Research Questions

The study particularly addresses the following research questions:

1. Is there a relationship between the characteristics of the board of director's (board size, board independence, CEO duality and board meetings) and the firm performance of Jordanian listed firms?
2. Is there a relationship between ownership structure (managerial ownership, institutional ownership, foreign ownership and family ownership) and the firm performance of Jordanian listed firms?
3. Is there a relationship between the presence of audit committee and the firm performance of Jordanian listed firms?
4. Is there a relationship between audit quality (audit fees and audit firm size) and the firm performance of Jordanian listed firms?
5. Does board ownership moderate the relationship between corporate governance and the firm performance of Jordanian listed firms?

1.4 Research Objectives

To answer the questions of the study as posed in the preceding section, this study aims to achieve the following objectives:

1. To examine the relationship between the characteristics of the board of director (board size, board independence, CEO duality and board meetings) and the firm performance of Jordanian listed firms.
2. To examine the relationship between ownership structure (managerial ownership, institutional ownership, foreign ownership and family ownership) and the firm performance of Jordanian listed firms.
3. To examine the relationship between the presence of audit committee and the firm performance of Jordanian listed firms.
4. To examine the relationship between audit quality (audit fees and audit firm size) and the firm performance of Jordanian listed firms.
5. To examine whether board ownership moderate the relationship between corporate governance and the firm performance of Jordanian listed firms.

1.5 Significance of the Study

It is undeniable that, since 1978, substantial empirical research on firm performance and corporate governance has emerged. However, the financial crisis in the global financial realm has undermined the importance and significance of corporate governance in resolving the financial crisis globally (Siddiqui, 2015). This implies that inquiry regarding the benefits of good governance for modern firms and the relationship between firm performance and corporate governance has become more demanding (Siddiqui, 2015(.

Survey of literature on the performance of the firm and corporate governance relationship has demonstrated the existence of inconsistency and inconclusiveness in the findings of the extant research. For example, Siagian and Rahadian (2013), Rashid and Islam (2013) and Ujunwa (2012) have claimed a significant positive association among firm performance and dimensions of corporate governance. However, Ahmed-Haji and Mubaraq (2015) have indicated otherwise.

Despite the number of studies done by previous researchers, none of them (to the knowledge of the researcher) has provided comprehensive conclusions that can generalize the concurrent issues shadowing the corporate governance of Jordanian firms. Considerable variance exists in the periods during which those studies were carried out. Thus, inconsistent research results may be a product of these gaps, in some measure, because of the ever-evolving business and economic environment. The inconsistency in the research findings can also be attributed to differing methodological styles and measures of performance adopted by those studies (Ahmed-Haji & Mubaraq, 2015; Shank, Hill, & Stang, 2013; Škare & Hasić, 2016).

Contextually, the bulk of the published research on firm performance and corporate governance relationship has been accompaniedin developed countries. Although, variations in governance mechanisms and arrangements are determined by the differences in firm characteristics and countries. For example, in the United States System, discrete shareholders play a significant role, and the main agency issues are only between managers and owners. However, the main risk of this system to shareholders is false financial reporting. Accordingly, Carcello, Hermanson and Ye (2011), stated that to reduce the agency conflicts the current governance system is the best to fit.

In some parts of the world, the scenario may be different from what it is in the United States due to factors relating to culture, legality, and regulatory traditions. Because of this, the corporate governance mechanisms developed in an Anglo-American context may not fit well in the context of developing countries, such as

Jordan (Carcillo et al., 2011(. Little evidence has been provided in the context of the Middle East, in general, and Jordan, in particular (Marashdeh, 2014), although the regulators, decision-makers and scholars have demonstrated the importance of implementing corporate governance in Jordan (Ajeela & Hamdan, 2011; Bawaneh, 2015; Hamdan, 2012).

The limited studies on firm performance determinants in emerging markets are noted as most empirical and realistic studies have been conducted in the United States or other developed nations. Because few studies have examined firm performance determinants in developing nations, a need, therefore, exists for more comprehensive studies. Moreover, theories postulated from developed nations may not be wholly applicable and appropriate to the emerging markets as differences exist between emerging markets and developed markets considering their characteristics (political system, corporate capital structure, corporate governance, ownership structure, system of taxation, laws of taxation, and financial systems (bank-based in emerging markets).

Often, emerging markets are characterized by less information efficiency, and higher volatility; they are smaller in size, which confines the empirical models proposed in developed markets. In addition to the above, Jordanian firms have highly concentrated managerial ownership.

In this regard, Aldehayyat et al. (2016) stressed the lack of empirical studies concerning the performance of the firms in Jordan. Al-Najjar (2015) stated that few studies have been dedicated to the ownership structure of Jordanian firms, and, hence, the literature of this kind is still lacking. Accordingly, the present research seeks to afford a comprehensive examination of the factors affecting firm performance in Jordan as a developing country because many structural differences exist between developed and developing economies. However, despite the endeavours by the government of Jordan for corporate governance in promoting the best corporate governance in Jordan, many researchers and policymakers have debated over the issue of whether the same structure of governance in developed markets may act effectively in a market that has a different economic culture, legal system, and firms' structure.

This current study gives a clear view of the influence of corporate governance on firm performance of companies of Jordan. This view will assist regulatory bodies in Jordan such as the Jordan securities commission in evaluating the level of corporate governance in Jordanian firms. Additionally, this study delivers awareness and knowledgeable understanding of the bodies and relevant authorities of whether present practices of corporate governance in Jordanian firms produce the expected outcomes.

1.6 Scope of Study

This study is organized into two phases. The first phase examines the relationship among board characteristics, ownership structure, the presence of an audit committee and audit quality and the firm performance of Jordanian listed firms. In addition, the current study also examined the moderating role of board/ managerial ownership between the relationship of corporate governance and firm performance of Jordanian listed firms.

The firms that are listed in ASE are split into three categories known as sectors namely, Financial sector, Industrial sector, and sector of Services. The sample of the current study is listed firms on ASE for the period of 2014-2016 under Industrial sector and service sector. This time frame was chosen because of the data availability. Moreover, Alabdullah (2016) argued that ASE three sectors face a decline in performance and contribution to GDP in the last few years, this decline is also reported by the World Bank (2016). The current study chooses only two sectors as these sectors cover almost half 49% of the ASE listed firms (ASE, 2017). The financial sectors excluded due to certain reasons like, financial sector follows the specific rules and regulations. Basically, the Insurance Commission and Central Bank of Jordan are the bodies that issue such rules and regulations. Other two sectors and these regulations are quite the opposite.

Moreover, the scope of current research is limited to the audit committee and quality, mechanism of the board and ownership structure. As previous investigations identify these mechanisms are key and important factors that subsidize and contribute to the firm's performance. The current research measured the firm performance using the ratios of Tobin's Q and ROA.

1.7 Definitions of Key Terms

1. **Firm Performance**: This is an integrated concept revealing the outcome of the operations of firm (Psomas&Kafetzopoulos, 2014). For this study, Tobin's Q Ratio and Return on Asset ratio is used to measure.

   Return on Assets ratio (ROA):"Return on assets is computed as the ratio of net income to total assets" (Burca&Batrînca, 2014).

   Tobin's Q Ratio (Tobin's Q):"The market value of equity plus the book value of the debt divided by the book value of the total assets" (Jermias&Gani, 2014).

2. **Corporate Governance**: Corporate governance includes the proceedings and processes upon which a firm is directed (Zureigat, 2015). The structure of corporate governance will determine the division of responsibilities and rights between participants of the firm including the board of director, managers, stakeholders and other shareholders and it establishes the decision-making rules, regulations and procedures.
3. **Board of Directors:** It represents the CEO and other top management of the firm who represent and monitor the control of the firm (Issarawornrawanich, 2015). This study employs four major characteristics of the board, namely, board independence, CEO duality, and board meetings and board size.

   Board Size: "Board size means the total number of directors on the board of a company including the Chairman and CEO" (Abu Haija, 2012).

   Board Independence:"Independence of board members refers to a Separate member of the board directors of the company, executive management, affiliations or external auditors in terms of financial associations or relationships aside from being a shareholder of the company, that may benefit him (financially or incorporeally) and this benefit may impact his decision or enable him to exploit his position" (ASE, 2017).

   CEO Duality: "The situation when Chief executive officer of the firm is also the chairman of board member of the same firmis called Duality"(Al-Matari et al., 2012).

   Board Meetings: "A board meeting is described as a formal gathering of the board of directors that is held at specific schedules in a year to rehash policy issues and problems. The meeting is presided over by the chairman of the board or an appointee and must meet the conditions of the meetings, with the deliberations recorded in minutes. Board meeting is calculated as the number of board meetings held in a year" (Makhlouf, Laili, &Basah, 2014).

4. **Ownership Structure:** This study defines the ownership structure as the distribution of shares amongst owners (McCann & Vroom, 2010). This study categorizes the ownership structure into managerial, institutional, foreign and family ownership.

   Managerial Ownership: Managerial ownership is often used as a variable related to agency problems between firm managers and its shareholders (Shuto& Takada, 2010).

   Institutional Ownership: Institutional ownership was measured as a percentage of shares owned by institutions to the total number of company's shares, calculated by dividing the number of shares owned by institutions to the total number of company's shares (Al-Najjar, 2015).

   Foreign Ownership: Foreign ownership was measured as a percentage of shares owned by foreigners to the total number of company's shares following Klai and Omri (2011) and Zureigat (2011).

   Family Ownership: This study uses family ownership to reflect a critical aspect of the ownership structure as reflected in the cultural environment of Jordan. Family ownership is calculated as the percentage of shares held by families divided by the gross number of a firm's shares (Alkhawaldeh, 2012).

5. **Audit Committee:** It is one of the committees established the by board of directors. This committee has the following duties: “review financial statements and management commentary, support financial supervision and increased accountability, ensure that management adequately develops and adheres to internal controls and accounting policies, review the Internal

Audit Department's conclusions on a regular basis and ensure that management acts upon the Internal Audit Department's recommendations diligently, ensure compliance with applicable regulations and recommend an external auditor for appointment" (ASE, 2013, p. 11).

6. **Audit Quality:** Audit quality is defined as a process of the quality of a systematic examination carried out by external quality auditor or an internal audit team. In this case, auditors use technics to recognize misstatements in a client's accounting system and report the misstatements (Soltani, 2014). This study employs two main dimensions of audit quality, namely, audit fees and audit firm size.

   Audit Fees: The remuneration provided to the auditor in the current year is the auditor's fees and it is calculated as the natural log of fees paid for the services of audit (Moutinho, Cerqueira, &Brandão, 2012).

   Audit Firm Size: The provision of audit services by the big 4 audit firm (Aryan, 2015).

7. **Board Ownership:** The number of shares which directors of the firm own over total outstanding shares in a year (Amer, 2016).

8. **Control Variables:** Leverage and Firm size have been studied as control variables.

   Firm size: Firm size is defined as, the natural logarithm of total assets (Azeez, 2015).

   Leverage: Leverage is defined as, the total liabilities divided into total assets (Makhlouf et al., 2017).

1.8 Organization of the Study

There are five divisions of the current research. Chapter One explains the background of the study and the problem statement. Research questions and objectives of the study were provided. It also discusses the significance of the current study scope and definition of terms. Finally, the organization of the chapter is explained.

Chapter Two contains a literature review and a summary of prior research that is related to board ownership, firm performance, and corporate governance including the resource-based dependency theory and agency theory.

Chapter Three explains and deliberate the research framework developed for the study. It elaborates the relationship among the independent variables and the dependent variables and alsodiscusses the relationship between ownership concentration as a moderating variable with the independent variables and dependent variables. This chapter explains how the research hypotheses are formulated based on the framework of the study and explains the data collection, the sample and the methods of measuring the variables.

In Chapter Four, descriptive analysis of the mentioned variables is examined. Correlation matrix, regression assumptions and hypotheses testing through multiple regression and hierarchical regression.

Finally, Chapter Five gives the discusses the study findings that are extracted from the main resultsin Chapter Four.Study implications as well as limitation of the current study, for the future suggestions and recommendations are also provided, and, finally the conclusion.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the previous empirical studies related to the current study. First, previous studies related to the examined variables are reviewed, starting with the dependent variable, which is firm performance. Then, the independent variables (board of directors' characteristics, ownership structure, and presence of audit committee and audit quality) are explained. Lastly, the moderating variable, i.e., board ownership, is discussed.

2.2 Overview of Firm Performance

The subject of firm performance has been a fundamental issue surrounding the business environment (Ombaka, Machuki, & Mahasi, 2015). This makes sense because firm performance is the key means of growth in several nations worldwide. In fact, firm performance remains the best avenue when it comes to a firm's survival and growth, and this is true for all firms (Audretsch, 2012). As Hansen and Mowen (2005) indicated, the element of firm performance is crucial to management because it encompasses the outcomes that individuals in a firm have achieved, and these individuals are the ones responsible for achieving the goals of the firm. Firm performance is ascertained by measuring its achievement in a specified period to obtain instrumental information on funds in terms of its flow, uses, effectiveness and efficiency (Almajali et al., 2012).

2.2.1 Definition of Firm Performance

Firm performance is an integrated concept encompassing the outcomes of the operations of the firm (Psomas & Kafetzopoulos, 2014). Phung and Mishra (2016) stated that firm performance describes the efficiency of a firm's operations. In analyzing a firm's performance, emphasis should be made in formulating an adequate description of the concepts regarding the performance of the firmthat uncovers the different dimensions upon which the firm's performance should be evaluated (Abubakar, 2015).

Firm performance can be defined in many ways. It can refer to the output achieved through its operations (Harrison & Wicks, 2013). On the other hand, researchers also defined Firm performance as the benefit or amount the stakeholders derive from the firm (Onakoya, Ofoegbu, & Fasanya, 2012). Wang, Lu, Ye, Chau, and Zhang (2016) defined firm performance as the activities of the firm which interact with different market mechanisms (financial factors and customers). Firm performance can be assessed in terms of producing products of good quality and reasonable prices (Kurtz & Boone, 2012). Whichever definition is used, performance is critical to the interested parties as it shows how well it is doing compared to others.

According to the studies of Pandey (2008), firm performance is a subjective measure, in which it measures how well a firm uses assets to generate revenue from its primary mode of business. Firm performance can also be used as a general measure of a firm's "overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation" (Investopedia, 2018). Evaluating the performance of a firm is critical to ascertain whether or not its business is viable.

2.2.2 Measurement of Firm Performance

Overall, the firm's success can be achieved by its performance. This performance is measured for a certain time period (Richard, Devinney, Yip, & Johnson, 2009).

2.2.2.1 Return on Assets

Return on assets (ROA) is calculated as the ratio of net income to total assets (Burca & Batrînca, 2014). According to Kiel and Nicholson (2003), Weir and Laing (2001) and Finkelstein and D'Aveni (1994) ROA is a performance measure that has been utilized expansively in the literature for accounting-based measurements. These scholars computed the ROA as net income over total assets. Scholars (Finkelstein & D'Aveni, 1994) referred to it as short-term performance computed as net income over total assets, and different companies have different ROA. Bonn, Yoshikawa, and Phan (2004) described ROA as the metric that analyses the efficiency of assets employed. Furthermore, Epps and Cereola (2008) stated that ROA serves as an indicator of earnings of the firm of investor generated from capital assets investment. With respect to its use, Hamid (2008) stated thatthe profitability of the firm in terms of revenue generation is mirrored as ROA.

Higher ROA means effective utilization of the assets of the company in fulfilling the economic interests of shareholders (Haniffa & Huduib, 2006). As mentioned by Ibrahim and Samad (2011) effectivity of the company is shown in higher ROA in terms of use of its assets in providing for the shareholders business and economic interest. In other words, ROA is an asset-use efficiency measure. As Klapper and Love (2002) indicated, ROA can be a key indicator to differentiate between the rate of return and profitability of business profitability the benchmark and is useful when measuring net income production in terms of efficiency from operations through the assets of the firm. Additionally, Miller, Boehlje, and Dobbins (2001) reported that ROA can function as the indicator of the management's effectiveness in capital employment because corporate managers are those who are responsible for operating the business and using the assets of the firm. A firm can still be efficient even if it is ranked as a poor capital user (Klapper & Love, 2002). Through ROA, apositive performance indicates that a company has achieved good results from prior planning for high performance (Nuryanah & Islam, 2011).

2.2.2.2 Tobin's Q

Tobin's Q is the most commonly used measure of firm performance (Jermias & Gani, 2014; Agrawal & Knoeber, 1996). Tobin's Q helps the investors to determine the firms' financial market value (Baek, Kang, & Park, 2004). Tobin's Q can be measured as the ratio of assets market value to assets replacement value. Scholars (Aljifri & Moustafa, 2007) define Tobin's Q as "the market value of equity plus the book value of debt divided by the book value of the total assets".

According to Bozec, Dia and Bozec (2010), Tobin's Q is the greatest and most appropriate and traditional way to calculate the firm's long-term performance. Likely, other scholars (Demsetz & Villalonga, 2001) stated that using the market value approach to evaluate the firm performance will give more accurate statistics to make decisions (Shan& McIver, 2011). The high Tobin's Q indicates that the firm is using its leverage for the development of the company and the value in the market of its assets is high as compare to the book value (Kapopoulos & Lazaretou, 2007).

2.2.3 Firm Performance in Jordan

Substantial economic progress has occurred in Jordan in the past years amidst the Middle Eastern conflicts. Efforts have also been exerted by the government in an attempt to bring in investors and to integrate the country into the global economy. Among the major efforts are the privatization programs launched in the 1990s, and at the start of the new millennium, the liberalization of the capital markets and the reformation of corporate governance reforms (Hamdan, 2012).

Developed countries are the center of previous researches regarding the performance of the firm. For instance, emerging markets have distinctive characteristics, particularly in terms of politics, economy and institutional conditions. This limits the usefulness of the existing empirical models (Pedersen & Thompson, 1997). Thus, the issue of financial distress in Middle Eastern nations, especially in Jordan, still requires due attention (Jaafar & El-Shawa, 2009). As such, there is a requirementand need to examine the relationships amongcorporate governance and firm performance in the scenario of Middle Eastern nations, particularly Jordan, needs to be scrutinized.

In Jordan, the issue of privatization remains pertinent (World Bank, 2016). The government of Jordan treats the management of state holdings of its listed firms as among its top priorities. Nonetheless, privatization has assumed a key position in the economic development package. This economic development package, which has been in effect since the 1990s, is an outcome of the country's economic reforms program and is a key part of Jordan's effort to be more self-reliant. The privatization process is still ongoing in Jordan as the country is attempting to enter the global market via partnership agreements. The World Trade Organization (WTO) and the

European Union (EU)are among the agreements that Jordan is currently joining (ASE, 2018).

According to Al-Zoubi (2014), in Jordan, a substantial level of inefficiency has been discovered by some studies in the public-sector institutions, particularly in administrative and employment policies, public funds usage, administrative archaism, services quality and debt level. Comparatively speaking, private sector firms have been found to have higher returns and create more job opportunities because their administrative and employment policies are more efficient (World Bank, 2016).

The ownership structure of firms in Jordan, which is signified by distinctive features and the performance of firms in economic growth is important. Hence, ascertaining if the concentration of ownership exert influence on the performance of Jordanian listed firms is necessary. Because of this, this study scrutinizes the relationship between governance and firm performance among Jordanian mentioned/listed firms on the ASE.

2.3 Overview of Corporate Governance

Corporate governance contributes to the economic health of a country (OECD, 2012). Owing to this contribution, the concept of corporate governance has been gaining substantial attention amongst the relevant parties (Rezaee, 2009). Also, considering the numerous corporate failures that have recently occurred worldwide, the concept of corporate governance is also found to be vital to an economy's growth potential (Rezaee, 2009).

From today's perspective, corporate governance is viewed as a complex mosaic, comprising laws, ethics, regulations, politics, professional associations and public institutions (Miloud, 2016). In the scenario of emerging markets, the practice of corporate governance remains new and underdeveloped compared to the growth of companies and stock markets. Moreover, the transparency of disclosure practices continues to be poor, and power is often concentrated in the hands of directors and other key management (Miloud, 2016).

The Public Oversight Board (POB) of the US defines the corporate governance system as, "those oversight activities undertaken by the board of directors and the audit committee to ensure the integrity of the financial reporting process" (POB, 2016). Adekunle and Aghedo (2014) defined corporate governance as running an organization in a way that guarantees a fair return on their investment by the owners as stakeholders. It is a virtuous circle linking the shareholders to the board of directors, management, staff, customers and the community at large. According to Al-Najjar and Clark (2017), corporate governance states to the system of rules, regulation, processes and practices by which a firm is controlled, handled and directed. Corporate governance identifies the distribution of the responsibilities and rights across the various stakeholders in the firm. In addition, Claessens and Yurtoglu (2013) defined corporate governance as the rules derived from sources, such as the judicial system, the legal system, financial markets and the marketplace. Ultimately, corporate governance is also a nexus of institutions that corporate laws, financial market regulations and labor laws, define (Miloud, 2016).

The world has witnessed large financial disturbances during recent years (Miloud, 2016). These have led many big firms to bankruptcy. Moreover, regarding the reliability of financial information and financial markets of the globe, beneficiaries and investors have become distrustful. Therefore, a focus on corporate governance in capital markets of developing countries has increased to help restore lost confidence (Abu Haija, 2012).

The agency theory has been used by many studies on corporate governance, relay on the perspective that firms can employ corporate governance mechanisms to control the opportunistic behavior of managers and reduce agency conflicts (Shehata, 2015). According to Miloud (2016), Monitoring of the management will be improved by the structure of effective corporate governance. Moreover, it will minimize the occurrence of misreporting, untimely, and financial reporting processes. Rose (2016) contended that among the most crucial functions of a corporate governance system, is to ensure a financial reporting process of high quality. Gisbert and Navallas (2013) argued that corporate governance has become the starting point for the preparation of financial reporting, and the main factor in producing the financial report. Several studies have documented that corporate governanceadds and contributes to better firm performance (Barros, Boubaker & Hamrouni, 2013; Claessens & Yurtoglu, 2013).

2.3.1 Concept of Corporate Governance

Corporate governance includes the proceedings and processes upon which a firm is directed (Zureigat, 2015). Corporate governance is like a guideline for top management and stakeholders about their responsibilities, power and limitations. It also helps in decision-making process by providing different sources necessary to make decisions.

Corporate governance becomes more popular among investors, stakeholders' economists and researchers. According to Ansah (2015), due to the prime significance of corporate governance in financial reporting and financial frauds, it becomes a pivotal point of interest in developing and developed countries. However, scholars are arguing about the definition of corporate governance as some scholars classified it into narrow and broader sense (Fülöp, 2014; Pandya, 2011). From a contracted perspective, Pandya (2011) defined corporate governance as the association among managers, shareholders, auditors and investors. From a broader perspective, on the other hand, Fülöp (2014) defined the corporate governance as the efficient use of capital to maximize the investors' confidence and wealth as well as increase the contribution of a company to the economy of the country with an aim to increase the firm performance.

Corporate governance can be defined from other perspectives as well. From the restraint viewpoint, corporate governance is seen as those laws helping owners to achieve their best interests (Cretu, 2012). The issue of corporate governance becomes more crucial in stabilizing the ageny conflicts and to mitigate the dishonest behaviour of top management (Hart, 1995)

Keasey definition of Corporate Governance is, Thompson, and Wright (2005) as:

> The set of mechanisms – both institutional and market-based – that induce the self-interested controllers of a company (those that make decisions regarding how the company will be operated) to make decisions that maximize the value of the company to its owners (the suppliers of capital) (p. 251).

Mentioned definition of board is too general that researcher can not develop any hypothesis or framework on it.

In corporate governance studies the dominant theory is agency theory which provide base to develop framework and to build testable relationships. Like Denis and

McConnell (2003) stated that agency theory describes well that shareholders have property right and actually the owners of the organization. Based on this, agency theory is used in this research as the underpinning theoryfor the purpose of developing the research framework. The agency theory talks about the protection the of shareholders and to align the managers interest and directors, with the value of firm is to increase the value of the organization. Hence, as the agency problems decrease the firm value will increase.

Therefore, agency theory is serving the key objectiove of the present study to investigate and examine the influence of corporate governance on Jordanian firms. Direct link among firm performance and corporate governance is poisted by the definition used in this study.

2.3.2 Corporate Governance in Jordan

Jordan has been focusing on corporate governance in an attempt to improve financial report quality. Legislators have enacted rules to guarantee that public firms adhere to the corporate governance requirements. Codes regarding corporate governance for the ASE listed firmsin 2009 by JSC. There are six main dimensions of this code, legislative framework, oversight of government, standards of disclosureand accounting, transparency, the board of directors' monitoring, property rights and protection of minorities rights (Abu-Tapanjeh, 2009). The code describes the committee's establishment and responsibilities. For instance, code defines the responsibilities of the board directors are:

1. Establishment of policies, strategies, procedures and plans that creates towards the firm objectives;

2. To take the required steps to guarantee adherence with the laws in force, with the inclusion of internal supervision on the firm's work in progress;

3. To adopt conditions for granting compensations, incentives and privileges to both the executive management and the board directors;

4. To develop a policy in order to organize relations with stakeholders to make sure that the firm's commitment towards them are fulfilled and to facilitate them with sufficient information, safeguard their rights and maintain effective relations with them;

5. To establish procedures for firm insiders for utilizing inside information to obtain moral or material benefits;

6. To evaluate and review the executive management's performance;

7. To establish necessary measures to guarantee adherence to the rules in force; and

8. To develop a risk management policy that addresses the risks faced by the firm (JSC, 2009, p.8).

In Jordan, the Code of Corporate Governance provides a description of the formation of committees under the supervision of the board directors, such as the audit committee. According to the JSC (2009), the audit committee members should be knowledgeable in accounting or finance, with at least one of them having prior experience in accounting or finance fields and having a professional/academic accounting certificate, finance or other relevant fields. Additionally, the code mandates that the committee meets periodically, with one of the meetings being held with the external auditor. The code also stipulates that the duties of audit committee's which are: to discuss issues and matters relating to the external auditor's nomination and working and to review the correspondence of the firm with the external auditor, to monitor any change in the accounts or accounting policies of the firm stemming from the audit processes, to monitor the adherence of the firm to the regulations and laws in force and the regulatory institutional requirements, to guarantee that there is no conflict of interest arises from the transactions, projects or contracts of the firm with related parties, and finally, to evaluate the auditing and internal control procedures and the auditor for internal control.

In 2017, the Corporate Governance Directives for Shareholding Companies for the ASE listed firms was released by the JSC. The directives provide guidelines for the establishment and accountabilities of corporate committees. According to the directives, the board is responsible for setting the strategies, plans, procedures as well as policies for attaining the goals of the company, taking the necessary steps to assure law compliance, setting the policy for risk management to manage the impending risks faced by the company, setting the procedures to prohibit the company's internal stakeholders from making use of internal information to gain personal benefits, taking the steps necessary to ensure internal supervision on the company's work and compliance to the laws, evaluating and reviewing the performance of the executive management, formulating the stipulations for awarding privileges, incentives and compensation to executive management and board of directors and maintaining good relationship with the stakeholders (JSC, 2017). Additionally, the board is also responsible for setting a policy for systematizing the relationship with the stakeholders. Here, the board must guarantee that the policy assures that the company will keep the promises it makes to the stakeholders, that the stakeholders' rights are preserved and that the stakeholders are provided with adequate and accurate information (JSC, 2017).

The description of the committees, including the audit committee that established by the board of directors, can also be found in the Directives. The JSC (2017) stipulates that those appointed as members of the audit committee must know about of finance/accounting knowledge. The JSC (2017) further stipulates that at least one member who has experience in finance or accounting should be on that committee. In other words, a member must possess a certificate, professionals or academicians in the fields of accounting as well as in finance or from any other relevant fields. As required by the directives, the audit committee must conduct periodic meetings, and with the external auditor, at least one meeting. The main responsibilities of the audit committee are to monitor the compliance of JSC disclouser rules and accounting standards in financial reports. Audit committee responsibility is to monitore the communication of the company with external auditor and to monitor the implication of policies of regulatory agencies related to accounting and in the accounts due to the processes of auditing, evaluating the internal audit and procedures of auditing as well as the auditor for internal audit and assuring no existence of conflict in the transactions, contracts or projects joined by the company and also other related parties.

As the JSC (2017) stipulates, the audit committee has the authority to recommend the external auditor to the board of directors by way of election by general assembly, to recommend a candidate as internal auditor of the company and to call for external auditor as needed to discuss the work performed by the external auditor.

In line with the above mentioned, Abusharbeh (2016) examined compliance of public firms in Jordan regarding corporate governance's principles. In this study, the author tested the robustness of corporate governance of Jordanian public shareholding companies. As indicated by the survey results, public firms in Jordan have reinforced their regulations toward corporate governance practices. But, the levels of compliance with corporate governance are still below the expected.

Ajeela and Hamdan (2011) considered the association amongearnings management in Jordan and their corporate governance. The authors discovered that the ASE listed industrial firms use earnings management in levels that vary. Furthermore, it was found that the application of mechanism of corporate governance and the establishment of committees which can minimize earnings management.

Shanikat and Abbadi (2011) evaluated corporate governance in Jordan among 10 pioneer companies mentioned on the ASE. Based on their findings, the boards of these companies have largely fulfilled their roles as laid out in the Companies Law. To develop the policies some of the tasks undertaken by the board. It also includes planning for the perusal of the company's management, selecting the CEO and ensuring that laws are observed. The study found no differences between management and board. This may have been because the chairman of board and the CEO are the same person in most firms. In addition, most audit firms are found to be lacking good quality.

An investigation conducted in Jordan by AlHaddad, Alzurqan and AlSufy (2011) stated a positive and significant relationshop among corporate governance and firm performance. They also found that good practices of corporate governance directly linked with tfirm value. Another study (Alabdullah, 2016) examined the impact on firm's performance by board size. The findings of his study revales that firm performance increase with the board size. In other words, larger boards leads to higher performance and firms with larg board perfrom better as compare to the other firms with small boards. In addition, Ben-Nasr, Boubakri, and Cosset (2012) stated that foreign and institutional ownership are directly linked with the negative change in earnings. Moreover, Alabdullah (2014) claimed that directors who are independent and CEO duality have no significant negative effect on firm perfromacne.

2.4 Board of Directors' Characteristics and Firm Performance

The form of internal control at the highest level is controlled by the board directors including the CEO (Issarawornrawanich, 2015). Previous studies have provided suggestion and evidence that the characteristics and functioning of the board directors are related to firm performance (Alabdullah, 2016). These are also related to the allocation of power within a company and how this allocation affects the distribution of rents. In addition, for the purpose of monitoring the top management, the highest form of internal audit is represented by the board of directors (Bubilek, 2017). Corporate governance is the system that organizes the relationship among the owners of the firm and the management. Larcker, Richardson, and Tuna (2007) defined governance as the set of mechanisms that control firm decisions as a result of the separation between management and ownership. This current study considers the characteristics of the board, particularly with respect to its size, level of independence, frequency of meetings and duality as well as their influence on firm performance. The characteristics and parameters are detailed in the sub-sections below.

2.4.1 Board Size and Firm Performance

Board size is an important determinate of corporate governance; therefore, the influence of board size is often expressed in the engagement of boards in corporate activities and affairs (Alagha, 2016). Numerous researches have been conducted to investigate the relationship between monitoring quality and size of board. Specifically, bigger boards are more capable of committing their time and effort while smaller boards are not, in terms of management oversight (Monks & Minow, 2011). Fauzi and Locke (2012) addressed the argument by claiming thatthe monitoring board is linked positively to larger boards. Obigbemi, Omolehinwa, Mukoro, Ben-Caleb and Olusanmi (2016) reported that firms with large board tend to have less earning management. while Jamaludin, Sanusi, and Kamaluddin (2015) revealed that firms with small boards generally fail to detect the earning management.Likely, studies Moreover, a few studies (Abed, Attar, & Suwaidan, 2012; Chekili, 2012; Talbi, Omri, Guesmi, & Ftiti, 2015) stated that board size positively correlate with earning management, whereas others (Aygun, Ic, & Sayim, 2014; Iraya, Mwangi, & Muchoki, 2015; Siam, Laili, & Khairi, 2014) claimed significant negativerelationship between board size and earning management.

Moreover, association between performance of company and corporate board size is investigated byKalsie and Shrivastav (2016) by using data of Indian non-financial firms listed on the NSE/CNX 200 index and claimed a significant positive relationship. Findings of their study revealed that the size of the board has a significant positive effect on Tobin's Q and ROA. The accounting-based measures, like ROA, are significantly and positively linked with board size. Likely, another study (Ansong, 2015) claimed that board size has a positive but weak relationship with the performance of small and medium firms. Accordingly, research (Alnasser, 2012) stated that size should be reasonable it should not be too large or too small.

According to the Corporate Governance Code (2009), all listed firms on ASE should have board size between 5-13 members (JSC, 2017). The existing literature on board size and firm's performance provide mixed evidence. For example, study (Alaryan, 2017) investigated the relationship between board size and firm performance using data of Jordanian no-listed firms and found a positive and significant relationship. Another study of Alabdullah (2016) reported thatlarge board size leads to positive firm performance. Contrary to it, other scholars (Abed, Al-Badainah & Serdaneh, 2012) found that board size cause weak monitoring in Jordanian firms means that larger board leads to weak monitoring and which ultimately negatively contribute to firm performance.

2.4.2 Board Independence and Firm Performance

Independent board members are described as members of the board who are unrelated either to the company or to the upper and top executive management or external auditors, or have company affiliations through financial interests, aside from shares owned, that may potentially bring him/her benefit (incorporeal or financial), or that may impact his/her decisions or may lead him/her to leverage his/her position in the company (ASE, 2017).Relationship between firm performance and independence of the board is broadly investigated in different contextlike Canada, UK, USA, Australia, Malaysia and Belgium (Iskandar, Noor, Rahmat, Saleh, & Ali, 2011). Board independence refers to the existing of non-executive directors on board and the structure of the board (CEO duality).

The existing literature on board independence provide mixed results as some studies provide positive relationship among independent directors on board and firm performance (e.g., Ahmed & Hamdan, 2015; Barka & Legendre, 2016), while some studies claimed insignificant relationship relationships (Al-Matari et al., 2012; Mehrotra, 2016; Orazalin et al., 2015). Likewise, Iskandar et al. (2011) claimed that independent directors provide better monitoring and control services that can increase the board performance. Contrary to it, Orazalin et al. (2015) found that there is no significant difference in the firm's financial performancewith a large proportion of independent directors as compared to the firms with a less independent board.

The appointment of an independent board director's is closely linked with the reason to increase the monitoring effectiveness of the board. Wu and Li (2015) stated that independent directors reduce the conflicts of interest or agency issues. Moreover, independent directors are strictertoperform their duties independently as theydo not have specific ties with the firm and monitor the board proceedings without any self-interest (Iskandar et al., 2011).

Parng and Fu (2011) noted that firms with going-concern risks are critical for all financial professionals. The analytical features of their study include three aspects: 1) the industry domain; 2) corporate governance characteristics, and 3) financial performance. They examined the influence of the percentage of independent directors on corporate governance risks. The practical finding of their classification and regression tree model provides a comprehensive understanding of the behavior of the firms with corporate governance risks. The results show an 87.5% success rate in detecting the status of a company, which demonstrates that this is an effective analytical tool and would suffice in detecting firms with going-concern risks.

In Jordan, the Jordanian Code of Corporate Governance issued in 2009 defines an independent member as, “a member of the board of directors who are not tied to the company or any of its upper executive management, affiliate companies, or its external auditors. This can be through any financial interests or relationships other than his/her shareholding in the firm that may be suspected of bringing that member benefits, whether financial or incorporeal, or that may affect his/her decisions or lead to the exploitation of his/her position with the firm” (JSC, 2009, p. 5).

In 2017, the ASE policy stated that the board of directors of Jordanian listed firms must include independent members to assure objective decision-making. Those independent members help ensure the balancing of the influences of all the parties, including the principal shareholders and executive management (ASE, 2017). A positive relationship between an executive’s compensation and performance of firms is reported by Alaryan (2017) in Jordanian firms. On the other hand, Alabdullah et al. (2014) found no relationship between board compensation and performance of Jordanian firms.

2.4.3 CEO Duality and Firm Performance

Undoubtedly, the places of the CEO and administrator of the top managerial staff are basic, taking into account that the CEO is a piece of corporate administration. Duality exists when the CEO of the firm is likewise the executive of the board (Palanissamy, 2015). The detachment of the CEO position from the director position is basic to expanding the checking execution of the board. To keep away from job equivocalness, the executive of the board and CEO of a firm ought not to be a similar individual, as indicated by and Fama and Jensen (1983) and Jensen (1993). One of the primary assignments of the governing body is to assess the supervisory crew, particularly the CEO. Thus, if the individual who deals with the firm is additionally leading executive gatherings and controlling inside data given to the top managerial staff, this duality may decrease the governing body capacity to examine performance. If necessary, a change of CEO would be sufficient (Khan, Muttakin, & Siddiqui, 2013). Along the same lines, Jensen (1993) believed that the concentration of power in one person may lead to decisions being made in his/her own interests, rather than taking the other stakeholders into account. A firm that is managed by two different people may lead to an increase in firm performance, but the CEO must not have direct control over the board.

Previous research has found positive, negative and inconclusive evidence on the relationship among CEO duality and firm performance (Hamid, Al Farooque, & Yarram, 2014; Issaraworn rawanich, 2015). Issaraworn rawanich (2015) showed an inverse relationship among CEO duality and ROA, indicating that firms with CEO duality have lower performance. Hence, CEO duality should be discouraged because the chairman cannot accomplish both functions without conflicts of personal interest.

Conversely, another research (Al-Matari et al., 2012) claimed a significant positive effect of CEO duality on ROA. Also, Yriopoulos and Tsatsaronis (2012) CEO duality has negatively influenced the decision of board and board’s monitoring ability. According to Dar, Naseem, Niazi, and Rehman (2011) stated that CEO duality can affect the performance of firms because agency faces problems and problems become more if the same person works for both positions.

Doğan and Yildiz (2013) analyzed the relationship of CEO duality and performance using a sample of 204 businesses in Turkey. There findings are similar with agency proposition that CEO duality negatively influence the firm performance.

Firms that separate the two roles should witness performance-related improvement following the change in leadership structure (Fama & Jensen, 1983). Firms that separate the roles of CEO and the board directors' chairperson should be able to detect an enhanced improvement in performance, after the change in leadership structure. The chairman separation and CEO positions also play a key and vital role in the effective and efficiency functioning of the board. To avoid ambiguity in their roles, the chairman of the board and CEO of a firm need not be the same person (Hamid et al., 2014).

In the context of the JCGC (2009), the rules ban the merging of the position of the chairperson of the board of directors with any other executive position within the firm (JSC, 2017). Many concerns have arisen regarding CEO duality. The agency theory posits a link between CEO duality and firm performance within the structure of the board of directors (Brown, Beekes, & Verhoeven, 2011). In the case of the former, the shareholder of the firm is the "principal", whilst the "agent" is the manager. More importantly, agency costs arise if a manager's actions are not considered to be centered on optimizing the profits of shareholders but rather for his/her own self-interests (Jensen & Meckling, 1976). This is an attempt to decrease such agency costs and to improve the level of firm performance.

The focal point of this current research is on the significance of CEO duality and its influence on firm performance in developing nations, particularly in Jordan. This is because in the context of Jordan, a developing nation, such a relationship has not been considered. Thus, the outcomes of this study would become a valuable addition to the extant literature.

2.4.4 Board Meeting Frequency and Firm Performance

Boards directors that conduct regular meetings are more inclined to perform according to the interests of their shareholders as more time can be used to observe and resolve matters pertaining to conflicts of interest, earnings management, and monitoring management. Comparatively, boards that meet less frequently are prone to have less time to acknowledge and address such issues and may only spend the limited time on managing (Abed et al., 2012). In addition, Vafeas (1999) argued that board activity, measured by board meeting frequency, is a very important component of the board of directors' operations. Also, a board of directors with high meeting frequency can lead to improvements in operating performance.

Several studies have been concerned with the effects of board meeting frequency on firm performance. Due to the consequence of board effectiveness on firm performance, numerous studies have been carried out in various settings in developing and developed countries of the world regarding this relationship. However, the findings have been mixed. Some studies from developed countries have confirmed a positive relationship betweenboard meeting frequency and firm performance (Gavrea & Stegerean, 2012; Liang, Xu, & Jiraporn, 2013). Likewise, in the developing countries, studies (Sahu & Manna, 2013; Khan & Javid, 2011; Kang & Kim, 2011; Hsu & Petchsakulwong, 2010) have also confirmed such a positive relationship.

Conversely, some studies have found a negative relationship. García-Sánchez (2010) and Barka and Legendre (2016) revealed a negative influence of board meeting frequency on firm performance in developed countries. Such negative influences have also been found in developing countries (Danoshana & Ravivathani, 2014; Johl, Kaur, & Cooper, 2015; Noor, 2011). Lastly, some studies have documented an insignificant relationship betweenboard meeting frequency and firm performance (Bhatt & Bhattacharya, 2015; Gavrea & Stegerean, 2012).

In the context of Jordan, the board of directors should hold regular meetings so that they can deliberate a firm's situation, any issues that arise or new suggestions (Makhlouf et al., 2014). The Jordanian Corporate Governance Code requires that the board directors should conduct at least six meetings annually. However, studies that have addressed the issue of board directors' meeting frequency and its influence on firm performance in the context of Jordan are scant. Thus, in Jordan, insufficient knowledge exists in terms of management and supervision, although it is anticipated that the benefits of frequent meetings will compensate for the costs incurred. The rationale is that more frequently board meetings will have a positive link to firm performance, and frequency of board meeting is regarded as a quantifier for monitoring the power and effectiveness and efficiency of the board directors.

Apparently, boards of directors that have a higher meeting frequency throughout the fiscal year demonstrate a higher level of performance. The frequency of board meetings is one of the monitoring measures instrumentals for increasing the performance of the firm (Al-Daoud, Saidin, & Abidin, 2016).

A summary of the previous studies related to board characteristics and firm performance is shown in Table 2.1.

Table 2.1
Summary of Major Previous Studies on Board of Director Characteristics and Firm Performance

No.	Author/ Year	Sample	Board of Directors Characteristics (Independent variables)				Significant variables (Main Result)
			Size	Independence	CEO duality	Meeting	
1.	Abidin et al. (2014)	75 Malaysia firms, 2003	Size	-----	CEO duality	-----	Found that board size has a positive impact on firm performance and negative effects of CEO duality on firm performance.
2.	Ahmed and Hamdan (2015)	42 Bahrain's firms, 2007 to 2011	Size	Independence	CEO duality	-----	Board size and board independence were found to have a positive impact on ROA, but CEO duality was found to have no significant effect on ROA.
3.	Alabdullah (2016)	60 Jordan firms, 2014	Size	-----	-----	-----	Board size affects ROA. Found a positive relationship between the size of the board and return on assets.
4.	Alabdullah et al. (2014)	109 Jordan firms, 2011	Size	Independence	CEO duality	-----	Found that board size has a negative association with firm performance. Likewise, the results showed that CEO duality and independent directors of the board have no impact on firm financial performance.
5.	Al-Daoud, et al. (2017)	118 Jordan firms, 2009 to 2013	-----	-----	-----	Meeting	Positive association between the frequency of corporate board meetings and firm performance.

Table 2.1 (Cont..)

Summary of Major Previous Studies on Board of Director Characteristics and Firm Performance

No.	Author/ Year	Sample	Board of Directors Characteristics (Independent variables)				Significant variables (Main Result)
			Size	Independence	CEO duality	Meeting	
6.	Al-Matari et al. (2014)	Oman non-financial firms, 2011 and 2012	Size	Independence	CEO duality	Meeting	Found a positive relationship between board size, board meetings and CEO duality with ROA but no significance. Also found a negative but not significant relationship between board independence and ROA.
7.	Al-Matari et al. (2012)	136 Kuwaiti non-financial firms, 2009	Size	Independence	CEO duality	-----	CEO duality was found to have a positive significant effect on firm performance. On the other hand, board size and board independence were found to be negative and insignificant determinants of the firm performance.
8.	Ansong (2015)	423 Ghana small and medium-sized enterprises (SMEs)	Size	-----	-----	-----	Found that board size had a positive relationship with financial performance.
9.	Hamid et al. (2014)	70 Jordanian and 206 Australian firms, 2005 to 2011	Size	Independence	CEO duality	Meeting	The findings indicate that board size, board independence, CEO duality and board meetings affect the firm performance measured by ROA.
10.	Kalsie and Shrivastav (2016)	145 Indian non-financial firms, 2008 to 2012	Size	-----	-----	-----	Found that board size has a positive and significant impact on firm performance.

2.5 Ownership Structure and Firm Performance

The distribution of share in a company is known as the ownership structure (McCann & Vroom, 2010). The relationship among ownership structure and performance of firms gains significant importance among the corporate world and among academic scholars. The linkbetweencorporate governance and firm performance are widely studied in the field of corporate finance. Researchers identified that the root casue of agency isses is ownership structure because when the managers' interest is not aligned with the firms' value they often play for their own interest (Varcholova & Beslerova, 2013). Due to the ownership separation and management, the directors are often acting as agents on behalf of owners and in this situation, they seek rent from stakeholders to maximize their own wealth (Gugong, Arugu, & Dandago, 2014).

The ownership structure is seen as the classes or groups of owners that exercise control over the activities of a firm. Various scholars have different definitions of ownership structure. Alipour and Amjadi (2011) defined the ownership structure as the composition of the biggest five shareholders, which includes a combination of institutional, individual and managerial shareholders. Shah, Butt and Saeed (2011) saw ownership structure as the percentage of shares held by directors. Wahla, Shah, and Hussain (2012) viewed the ownership structure as the composition of managerial ownership and concentrated ownership. Uwalomwa and Olamide (2012) viewed the ownership structure as decisions made by those who own or who would own shares. Researchers (Varcholova & Beslerova, 2013) claimed root cause of agency issues is ownership structure when the managers' interest is not aligned with the firms' value they often play for their own interest.

Empirical and theoretical studies on ownership structure have provided evidence that ownership structure is critical in corporations because the ownership structure is related to firm performance and firm value (Alkhawaldeh, 2012). Likewise, the ownership structure is also the focal point of this study. Ownership structure is measured using four different types namely, managerial ownership, institutional ownership, foreign ownership and family ownership. All these types are discussed separately in the following section.

2.5.1 Managerial Ownership and Firm Performance

Researches (Beyer, Czarnitzki& Kraft, 2011) revealed two important aspects of managerial ownership namely, entrenchment effect and incentives effect. The incentives effect is that the interest of managers is aligned with the value of the firm, therefore, if managers do anything they to bear the cost also. Hence according to incentives affect the managerial ownership has a positive effect on firm performance. Contrary to it, if directors or managers have a significant share of ownership then they have significant power to interrupt the board decisions, as well as they, can also lead the things in a way that they can maximize their own wealth at the expense of institutional and large shareholders. Likewise, Abubakar (2015) stated that managers with share ownership can perform better as compare to the other managers who are seeking rent for their personal wealth while ignoring the benefits of other major stakeholders. Moreover, equity ownership positively contributes to firm performance as the managers are concerned about their own equity also.

Researchers (Leblebici & Fiegenbaum, 1986) asserted that administrative ownership helps in the decrease of the issues of the organization as the directors are increasingly worried about their own riches on the off chance that they wittingly plan something incorrectly for increment their very own advantages that will at last influence their value of equity shares.

Scholars (Fraile & Fradejas, 2013; Chen, Hou, & Lee, 2012) provide two main propositions of managerial ownership the first one is the entrenchment hypothesis and the second is the convergence of interest. The followers (Morck, Shleifer, and Vishny, 1988) of convergence of interest proposition argued that directors' ownership and firm performance positively correlate. In simple words, high level of managerial ownership means that high firm value. Managerial ownership aligns the interest of managers with the firm value (Jensen & Meckling, 1976). Contrarily, entrenchment hypothesis is that managerial ownership negatively correlates with the firm value. Thus, as managerial ownership increases, firm performance deteriorates (Amran & Ahmad, 2013; Gaušaitė & Vedeckis, 2016), because dismissing managers who hold a sizeable proportion of equity is difficult.

According to Bos, Pendleton, and Toms (2013), various research has been conducted to examine the associationbetweenmanagerial ownership and the performance offirms using data from different countries. Din and Javid (2011) research the effect of administrative shares on firm value by utilizing information of non-budgetary firms of Pakistan and they found that administrative ownership emphatically and fundamentally impacts the firm value. They also found that only low level (0%-5%) and moderate level (5%-25%) of board ownershippositively influence the firm wealth. Managerial ownership higher than the 25% reduces the firm value. Bos et al. (2013) also reported similar findings. Another Pakistani study conducted by Wahla et al. (2012) studied the affetcs of ownership on firm using a sample of non-financial firms for the period of 2008-2010. Their findings indicate that managerial ownership negatively and significantly affects firms' performance (measured as Tobin's Q). Alabdullah (2018) conducted a study on 109 non-financial Jordanian firms listed, they claimed that managerial ownership positively influence the firm performance.Two reasons can explain this: 1) managerial ownership is a vital corporate ownership structure element, and 2) managerial ownership could cause agency conflict.Researchers (Holderness, 2003) claimed that managerial ownership helps in the reduction of the problems of the agency as the managers are more concerned about their own wealth if they wittingly do something wrong to increase their own benefits that will ultimately affect their equity shares value.

Mohammed (2018) and Warrad, Almahamid, Slihat, and Alnimer (2013) maintained that managerial ownership should lesser the interests of the shareholders with the interests of agents and thus reduce the agency problem, maximize the wealth of shareholders and lead to better firm performance.

2.5.2 Institutional Ownership and Firm Performance

Several definitions exist for institutional ownership. Demiralp, D'Mello, Schlingemann, and Subramaniam (2011) defined institutional ownership as the shares owned by large registered companies. Institutional ownership can be measured as the ratio of institutional ownership to total ownership (Ramadan, 2012).

It is a common belief that institutional investors are the strict monitor of board activities because they have large share ownership in the firm therefore, they are more concern about their wealth. As well as block holders can influence the management of resources and decisions of managers and directors. In the presence of institutional ownership managers and directors work for the firm betterment and adopt less opportunistic behavior (Edmans & Manso, 2010).

Several studies have examined this relationship. Aggarwal, Erel, Ferreira, and Matos (2011) showed that firms which have higher international institutional ownership affect the corporate governance system and not the other way around. They showed thata high level of institutional ownership leads to purge a company of a poorly performing CEO and that institutional investors can change the system of corporate governance to create and generate value for the firm. Likewise, another study claimed a significant positive relationship between blockholdersand firm performance (Fazlzadeh, Hendi, & Mahboubi, 20110). Also, an examination researched Tehrani recorded firm explored the impact of ownership on organization's cash related game plans and execution demonstrated that institutional belonging basically and distinctly compares with budgetary techniques (Heydari, Razeghi, & Sharifi, 2015). This examination furthermore declared a positive and basic relationship among institutional ownership and benefit for assets.

On the other hand, Charfeddine and Elmarzougui (2011) argued that numerous studies claimed a negativeand significant relationship among blockholders' ownership and performance of firms. For instance, a study of French financial market stated that blockholders' ownership negativelycorrelates with a firm performance by the measurement of Tobin's.

In Jordan, Al-Najjar (2015) and claimed that blockholders' ownership does noteffect on the financial performance of firms. This is because most institutional examiners don't manage association preferably yet rather exchange off or side with the board and disregard the best points of interest of minority financial specialists. In the interim, Al-Zaidyeen and AL-Rawash (2015) explored the impact of institutional proprietorship and firm execution of 51 Jordanians organizations. The creators found that institutional proprietorship has a negative connection with firm execution.

Hence, the emphasis of this study is on the significance of institutional ownership and the influence on the performance of the firms in Jordan.

2.5.3 Foreign Ownership and Firm Performance

Most of the developing countries have scared resource to boost their domestic industry, therefore, international investors find it attractive to invest in such countries (Leuz, Lins, & Warnock, 2010), the foreign investment trend is on its peak since 1990.

Similar to other Middle Eastern and North African (MENA) countries, Jordan has implemented the required legislative reforms and established a legal environment advantageous to foreign investments (JSC, 2017). Because of booming foreign investment inflow into emerging markets, the influence of foreign investors on the activities of firms has increased (Vo, 2011). However, scant research has been conducted using detailed datasets to scrutinize the links among foreign ownership and the capital structure of decision-making of Jordanian listed firms.

Foreign investment may affect the business in two different ways. Form the agency theory perspective, foreign investors can be a source of good management and strict monitoring to reduce the myopic behavior of other directors (Choi, Sul & Min, 2012). These authors also argued that by serving if foreign investors also serving on board they will provide diverse experience to minimize agency problems of the corporate board. As foreign investors demand good corporate disclosure and true information. Hence, firms with foreign ownership increase the standard of their corporate disclosures and corporate governance which ultimately ends in high firm performance (Ghahroudi, 2011). However, it can also be a reverse situation if foreign investment increased than a specific level. When foreign owners havea large percentage of shares owned than they have the power to manipulate the board decision in their favor rather think about the minor shareholders. However, foreign ownership ultimately increases the firm performance by increasing the monitoring and governance quality of the firm (Choi et al., 2012).

Ongro (2011) claimed that foreign ownership has a significant positive relationship with firm performance of Kenyan firms. He claimed that foreign investors rise the quality of board decision making by providing guides, foreign investors also serve as strict monitors of every activity of the board in this way they are increasing the quality of board proceedings. Another study (Pervan, Pervan & Todoric, 2012) claimed that foreign investors can manage the firm more effectively than domestic firms.

Form an agency theory perspective, according to Nakano and Nguyen, (2012) foreign investors can be a source of good management and strict monitoring to reduce the myopic behavior of other directors. Likely, another study of Japanese electronicindustry found a positive link between foreign ownership and firm value.

Phung and Le (2013) examined the effect of foreign ownership on firm performance in Vietnam. Contrary to previous studies, they found a significant and negative effect of foreign ownership on firm performance. They said that like Japan, an inefficient corporate governance system characterizes Vietnam. They attributed the reason for the poor results to the fact that foreign investors cannot adequately monitor firms in the Vietnamese environment. On the other hand of Mihai (2012) conducted research on Romanian listed firms and found that the positive effect of foreign ownership on firm performance becomes weak during the time of financial crises.

Moreover, a non-linear relationship between these two is also reported by several studies. For instance, an inverted U-shaped relationship is found by researchers in Turkish listed firms during the time of 2005-2007 (Gurbuz & Aybars, 2010). It means that firm performance will increase with initial foreign investment and start decreasing as the level of foreign ownership increased. The similar results are reported by the Azzam, Fouad and Ghosh (2013) for Egyptian listed firms, they argued that a certain level of foreign ownership increases the firm performance, however, if foreign ownership crossed that certain level it will harm the firm value. A study of Chinese firms revealed that firm performance increased with 47% of foreign shareownership and start decreasing if foreign ownership is higher than the 47% (Greenaway, Guariglia, & Yu 2014). These researchers also claimed that the nationality of foreign investors also matters a lot for firm performance. Choi et al. (2012) alsoobtained relationship among foreign shareholdings and firm performance is a U-shaped among Korean listed firms during the period of 204-2007. Views are given by the Choi et al., (2012), When foreign owners havea large percentage of shares owned than they have the power to manipulate the board decision in their favor rather think about the minor shareholders. However, foreign ownership ultimately increases the firm performance by increasing the monitoring and governance quality of the firm.

In Jordan, the JSC developed a privatization strategy in 2009. As indicated by the JSC (2009), the purpose of the strategy is to lure foreign investors into the Jordanian capital markets. Zureigat (2011) and Hamdan (2012) reported that among the objectives stipulated by the strategy are: to encourage efficiency, transparency and fairness in the market, to guarantee a high level of earnings quality and to lessen information asymmetry between managers and shareholders. Zureigat (2011) believed that the JSC should also maintain its strategy to encourage and lure foreign investments into the listed firms in Jordan and apply new instructions that could bring in foreign investments. Therefore, foreign ownership is expected to influence the performance of firms. Thus, the agency theory and the results of Mohandi and Odeh's (2010) study indicate that foreign ownership enhances financial statement quality in Jordan.

2.5.4 Family Ownership and Firm Performance

A family business is characterized by ownership by one or more than one family members who are also the members of the team management (Segaro, Larimo, & Jones, 2014). Family ownership is common in most of the countries worldwide. Businesses owned by families are characterized by a strong motivation of the owners to minimize agency costs while increasing the value of the firm. Scholars (i.e. Ahmad, Nadeem, Ahmad & Hamad, 2014) claimed a positive relationship among firm value and family ownership in Pakistani firms. However, if family members also control the firm than they have the power to use the resources for their own benefits rather think about the minor shareholders. Therefore, it is suggested that management should be separate from the owners to protect the stakeholder'swealth.

Bambang and Hermawan (2012) studied consumer goods firms in Indonesia from 2005 to 2009.The authors used ROA as a proxy in this study and concluded that a high level of concentrated shareholders by families may reduce corporate performance. The authors further added that family companies are inclined to engage in actions to fulfill the interests of the family members, including expropriating the wealth of shareholders who are not family members. Moreover, Fattoum-Guedri, Guedri, and Delmar (2017), Haron, Zam, and Abdullah (2017), and Shen, Au, and Yi (2018) argued that family firms are more risk-averse and are inclined to mergers or other opportunities for expansion owing to their concern for the family bequest.

Ismail, Haron, Idayu, and Zam (2016) conducted a study of 634 mentioned companies on the main board of Bursa Malaysia in 2013. Using ROA as a proxy, the authors found that CEO family-owned firms have a positive link with firm performance, particularly if family members occupy the top positions, including top management, CEO, chairperson or firm director. Conversely, the link becomes less significant if family members do not hold any of the aforementioned positions. This means that the potential effects of family ownership will likely occur when family owners interfere with the management and when a family has control over the firm. Moreover, Charbel, Elie, and Georges (2013), whose study was in Lebanon, concluded that family ownership leads to the positive performance of the firm. The researchers reported that the primary reason is that family managers in Lebanon act as stewards who consider the success of the company as their own, rather than as agents seeking to gain personal benefits at the expense of the company.

Jaafar, James, and Wahab (2012) stated that ownership concentration can impact the remuneration of directors in certain firms. For instance, a family-owned firm can manipulate remuneration through combined control to mitigate the effectiveness of monitoring by the remuneration committee, which provides an opportunity for them to expropriate private benefits. This action might result in losses for minority shareholders due to fewer dividends available for a pay-out. On the other hand, members of families are more concerned about the value of the firm, in the long run, hence, they try to maximize the firm performance by providing their best services and resources. As well as the agency issues also reduced in family-owned business Shyu, 2011). Likewise, scholars (Pukthuanthong, Walker, Thiengtham, & Du, 2013) claimed that in family-owned business the interest of managers and other minor shareholders are aligned as both parties are concerned with their wealth maximization which ultimately reduces the agency problems.

Two theoretical viewpoints exist for the role of family ownership (Pindado & Requejo, 2014). First, the firms of founding families will limit the ability of managers to manage earnings; and second, a likelihood exists that the controlling families will engage in the expropriation of the interests of minority shareholders, which would, in turn, result in lower performance. For example, members of the controlling family often hold top management positions, and thus, can exercise control over the board of directors, which as a result, may provide them with opportunities to expropriate the interests of minority shareholders (Elvin & Hamid, 2016).

Apart from that, the performance of family firms often diminishes with firm age (Simões Vieira, 2014). Firms in Hong Kong are mostly family firms. Owing to this, family ownership in Hong Kong has been found to influence performance. When ownership is at a significant level, the entrenchment effect is strengthened. This shows that if family ownership can be monitored and employed for a good purpose, the performance of the firm can be improved. According to Alsahlawi and Ammer (2017), firms with highly concentrated ownership should focus on increasing their corporate governance practices so that their performance can be improved. Din and Javid (2011) reported a positive relationship among family ownership and firm efficiency for the six-year period from 2004 to 2009 for firms listed on the Karachi Stock Exchange (KSE) -100 indexes in Pakistan. Meanwhile, Dekker, Lybaert, Steijvers, and Depaire (2015) studied 523 private family businesses in Belgium. In this study using factor analysis, the researchers discovered five different dimensions of the professionalization construct. Further, based on the outcomes of regression, the researchers concluded the existence of significant and positive impacts imparted by increasing non-family participation, implementation of human resources control systems and decentralized authority, on the performance of firms.

Groups of family businesses are the widespread form of ownership structure in the context of Jordan. In Jordan, numerous firms, both listed and unlisted, are operating in numerous sectors and are family-owned. The firms appear to be independent legally and have links with each other because the owners are from the same family. The agency theory appears to be inapplicable to these groups. This is because most shareholders and managers of the aforesaid companies are members of the same family (Nimer, Warrad, & Khuraisat, 2012).

Several studies conducted in numerous countries have concluded that family business firms make significant contributions to the economic activity of a country. Owing to this, the current study concentrates on the significance of family ownership and its impact on firm performance in Jordan.

A summary of the previous studies related to ownership structure and firm performance is shown in Table 2.2.

Table 2.2
Summary of Major Previous Studies that Examine Ownership Structure and Firm Performance

No.	Author/Year	Sample	Ownership Structure (Independent variables)				Significant variables (Main Result)
			Managerial	**Institutional**	**Foreign**	**Family**	
1.	Alabdullah (2018)	109 Jordan firms, 2012	Managerial	-----	Foreign	-----	Found a positive relationship between managerial ownership and firm performance. On the other hand, no evidence to support the impact of foreign ownership on performance.
2.	Charfeddine & Abdelaziz (2011)	35 French firms, 2002 to 2005	-----	Institutional	-----	-----	Found a significant negative relationship between institutional ownership and firm performance measured by a proxy Tobin's Q.
3.	Dana (2015)	82 Jordan firms, 2005-2013	-----	Institutional	-----	-----	Found no strong evidence that a relationship existed between institutional ownership and firm performance.
4.	Din & Javid (2011)	29 Pakistani firms, 2004-2009	-----	-----	-----	Family	Found a negative relationship between family ownership and firm performance.
5.	Ismail, Haron, Idayu and Zam (2016)	634 Malaysia firms, 2013	-----	-----	-----	Family	Found that family ownership has a positive link with firms' performance.

Table 2.2 (Cont...)

Summary of Major Previous Studies that Examine Ownership Structure and Firm Performance

No.	Author/Year	Sample	Ownership Structure (Independent variables)				Significant variables (Main Result)
			Managerial	**Institutional**	**Foreign**	**Family**	
6.	Mohammed (2018)	90 Jordan firms, 2013 to 2016	Managerial	Institutional	-----	Family	Found that managerial and family ownership has a negative relationship with firm performance. Institutional ownership has a positive impact on firm performance.
7.	Nakano & Nguyen (2012)	205 Japan firms, 1998-2011	-----	-----	Foreign	-----	Found that foreign ownership is significantly associated with firm value.
8.	Ongore (2011)	54 listed firms in Kenya	Managerial	Institutional	Foreign	-----	Found that managerial ownership, institutional ownership, and foreign ownership were found to have significant positive relationships with firm performance.
9.	Zeitun (2009)	167 Jordan firms, 1989-2006	-----	Institutional	-----	-----	Found a negative relationship between institutional ownership and firm performance.

2.6 Presence of Audit Committee and Firm Performance

Audit committee is responsible to monitor the financial reporting of a firm, as well as the compliance of accounting standards in internal accounting and in risk management (ASE, 2013). In relation to these responsibilities, Parker (1992) referes the audit committee as a group of directors formed by a firm to enable to build the connection between external auditors and board of directors or to connect with one another. Audit committee contains generally independent directors and its assignment is to quantitatively direct the organization's exercises. Further, as an audit committee provides assistance to the board in fulfilling its financial and fiduciary responsibilities towards the shareholders, the audit committee is regarded as a key component of corporate governance.

According to the agency theory, an audit committee is an oversight committee helping to oversee the financialreporting process and in monitoring a company's management to keep them from manipulating figures for their own self-interests (Emmanuel, Ayorinde, & Babajide, 2014; Deloitte, 2015). The internal mechanism of corporate governance requires that the audit committee should reduce the asymmetry of information that could, in turn, result in decreased agency problems. More importantly, investors make use of corporate financial statements as their source of financial information. However, attributes of the audit committee should be unique such as the presence of non-executive directors and sufficient size and expert membersand have frequent meetings to perform its duties more effectively. However, neither the composition nor the characteristics of an audit committee are always similar. In fact, as Collier (1994) indicated, the operational definition of an audit committee may differ according to the firm; it may also differ according to country context.

Studying the functioning of an audit committee is appropriate for Jordan because the country possesses an innovative stock exchange market with 224 listed firms (ASE, 2017). Additionally, only a few empirical studies have been conducted in Jordan regarding the audit committee (Abdullatif, Ghanayem, Ahmad-Amin, Al-shelleh, & Sharaiha, 2015). For instance, Hamdan and Mushtaha (2011) scrutinized the link between the audit committee and quality of audited report of ASE listed firms of Jordan.Findings of their study conclude that size of audit committee positively correlates with a report of external auditors' report, they also found that independence of audit committee and frequency of audit committee meetings does not have any effect on the report of external auditors' report.

Researchers (Hamdan, Mushtaha & Al-Sartawi, 2013) investigate that how earning quality change with audit committee attributes. Their findings revealed that audit committee members with experience in finance field positively affect the quality of earnings, they also found that meeting frequency positively correlates with earnings. However, the size of the audit committee and member'share ownership negatively influence earning quality. The quality of earnings does not affect due to the committee independence. On the other hand, scholars (Hamdan, Sarea & Reyad, 2013) stated that independence, size and financial expereince of audit committee positively correlate with firm performance. Researchers (Al-AKra, Eddie & Ali, 2010) claimed that the compliance of IFRS in financial disclosure is strongly linked with the audit committee in Jordanian firms. Other scholars (Al-Sa'eed & Al-Mahamid, 2012) found that the audit standards knowledge of audit committee members positively affects financial performance. Moreover, audit committee's meeting frequency decreases the audit report lag (Aljaaidi, Bagulaidah, Ismail, and Fadzil, 2015).

Furtheremore, Reddy, Locke and Scrimgeour (2010), audit committee reduce the agency cost (the cost to revenue) in public listed companies. A study (Fauzi & Locke, 2012) of NewZeland firms analysed the association between firm performance and audit committee and found a positive relationship. They used two proxies of firm performance namely, Tobon’s Q and ROA and the findings of their study indicated that the audit committee has a positive relationship with both of it. A study of Jordanian firms listed on ASE during the period of 2015-2016 revealed that there is a frail positive and huge relationship among review board and firm (Zraiq& Fadzil, 2018).

The JSE issued guidelines for the audit committee in 2017, which includes the following. According to JSE, audit committee should consist on three no-executive directors with at least two independent directors. To be eligible to serve on the audit committee, potential members must be conversant in financial and accounting activities. The committee must reach decisions based on the majority rule concept. Additionally, written procedures are necessary to define the duties and procedures of the committee (JSC, 2017).

A sum up of previous studies related to the relationship among the audit committee and firm performance is shown in Table 2.3.

Table 2.3
Summary of Major Previous Studies that Examine Audit Committee and Firm Performance

No.	Author/Year	Sample	Audit Committee (Independent variables)	Significant variables (Main Result)
1.	Al-Sa'eed and Al-Mahamid (2012)	156 questionnaires	Audit Committee	Found a positive effect for the understanding of audit committee members of the functions of the audit committees on financial reporting.
2.	Fauzi and Locke (2012)	79 New Zealand's firms	Audit Committee	Using Tobin's Q, the audit committee yields a significant and positive relationship with firm performance. Meanwhile, for ROA, audit committee exhibit a positive and significant relationship with firm performance.
3.	Hamdan et al. (2013b)	106 Jordan firms, 2008-2009	Audit Committee	Found that the size of an audit committee and independence and financial expertise of their members were positively related to the financial performance and share performance of a company, but not operational performance.
4.	Zhou, Owusu-Ansah, and Maggina (2018)	774 Greece firms, 2008 to 2012	Audit Committee	Concluded that there is no association between the audit committee and firm performance.
5.	Zraiq and Fadzil (2018)	228 Jordan firms, 2015 to 2016	Audit Committee	The findings indicated a positive direction but insignificant relationship between audit committee size and ROA. Farther more, the result shows audit committee meetings significant and positive direction with ROA.

2.7 Audit Quality and Firm Performance

Soltani (2014) defined the quality of audit as a systematic investigation conducted by the internal or external auditor. During this process, auditors adopt different methods to identify any misstatement in financial accounts. Because the external stakeholders of the financial reports demand the true and appropriate financial statements, so they can make the correct decision about the investments. If external investors have trust in the financial reports of the company, they tend to provide more funds or invest more in the company which intimately increase the firm performance. In addition, controllers are progressively worried about the nature of money related reporting standards if a firm adopt the standards that will increase their quality of financial reports, then the regulators increase the rating of the effectiveness of company (Aledwan et al., 2015; Miettinen, 2011). Due to the prime importance of audit quality for regulators, it becomes the critical element of external stakeholders' interest (Heil, 2012; IAASB, 2011).

Furthermore, external audit is conducted by implementing the high-quality audit standards to make sure the accuracy of the financial reports and to investigate the compliance of accounting standards. Hence, high quality audits normally boost the quality of corporate governance, financial reports, risk management and internal control system which results in increased performance (Schmidt & Wilkins, 2012).

To study this issue, this research uses two main proxies of audit quality:1) audit fees; and 2) audit firm size, as elaborated on below.

2.7.1 Audit Fees and Firm Performance

The relationship among auditor independence and high-quality audit is an old debate among scholars, regulators and financial users. Previous studies revealed that auditors are receiving the high amount in terms of their fee and scholars (Hamid& Abdullah, 2012) stated that the quality of audit is significantly linked with the fee paid to auditor. These authors also argued that high audit fee linked with high audit quality. Therefore, the audit fee can be used as a proxy of audit quality.

Normally, audit fees considered as reflection of audit effort, if the fee is the quality and effort of will be high. A researcher hasexplored the correlation between fee of audit and quality of audit in different aspects using different proxies (Kanagaretnam, Krishnan, Lobo, & Mathieu, 2011). Additionally, another belief is that larger audit firms can charge higher audit fees not only because of their greater audit monitoring efforts but also due to their monopolistic power in the marketplace. Subsequently, the desire is that a high audit charge is compared with more endeavors in the audit procedure and that will prompt higher audit quality.

Several existing studies examined the relationship among firm performance and audit fees, for instance, a research (Moutinho et al., 2012) using data from US-listed firm examined the association between performanceof firm and fee of audit. Their study indicated that fees paid to auditors negatively influence the performance of a company. Contrary to it, a study of S&P 500 non-financial firms indicated that there is norelationship performance of a company and audit fee (Santos, Cerqueira, and Brandão, 2015).

Meanwhile, in developing economies, the financial accountants and firms considered as riskier and require high audit effort which in result increase the audit fee and decrease the profit of the company and ROA (Alali, 2011; Moutinho et al., 2012; Sayyar et al., 2015; & Stanley, 2011). It is observed that the audit fee is high in those companies in which the number of stakeholders islarge and they demand reliable and accurate financial information (Cassell, Drake, & Dyer, 2014; Martinez & de Jesus Moraes, 2014).

According to Bell, Doogar, and Solomon (2008), "the risk-based approach of audit planning and subsequent pricing means that clients perceived by the auditor as risky are typically assigned more efforts, which in turn, results in higher audit fees" (p. 753). Stanley (2011) stated that the fee of the audit is single for future and current company performance. Other scholars (Martinez & Jesus Moraes, 2014) investigated the relationship between firmperformance and auditor's fee using a sample of Brazilian listed firms during 2009-2011. Their findings revealed that higher audit fee is an indicator for market and investor that audit quality and firm performance of a company is high. They measured the firm performance by Tobin's Q and found a positive relationship.

In the Jordanian context, Aledwan, Bani Yaseen, and Al Kubaisi (2015) concluded that there is a positive relationship between audit fees and firm performance.

2.7.2 Audit Firm Size and Firm Performance

As decision-makers, investors, shareholders and other stakeholders seek accurate, reliable and relevant financial information. The task of auditors is to provide such information through audited financial statements (Ilaboya & Okoye, 2015). The belief is that high-quality auditors and audit firms add significant value to financial information, and therefore, the demand for quality will increase.

Of the factors affecting perceived auditor autonomy, the size of the audit firm has remained the most highly referenced (AL-Ajmi & Saudagaran, 2011). According to them, audit firm size is considered a key element related to perceived auditor autonomy and to the quality of audit activities. They also found that a Big4 audit firm (Deloitte, PricewaterhouseCoopers, Ernst & Young, and Klynveld Peat Marwick Goerdeler) is a key factor related to auditor independence, corroborating the perception of the negative influence on auditor independence when an auditor is not a Big4 firm. Because the major outcome of an audit is the standardized audit report, studies have employed several proxies to enhance audit quality and to determine the presence of differentials in audit quality. A specific stream of audit differentiation literature addresses the quality of the client's financial statement, where discretionary accruals have frequently been utilized as audit quality proxy, as they represent the auditor's limited control of the reporting decisions of management (Foroghi & Shahshahani, 2012; Lawrence, Minutti-Meza, & Zhang, 2011).

Previous studies have reported that the size of the audit firm affects audit quality (DeFond & Zhang, 2014; Sawan & Al Saqqa, 2013). For instance, DeFond and Zhang (2014) argued that big audit firms have a positive influence on the quality of audit services. This positive impact occurs because big audit firms have employees who are more competent, with better financial and technological resources than smaller firms, to provide their services. Smaller firms have a limited number of employees and financial resources, and so, they are unable to provide personalized services. Thus, Big4 firms are expected to meet management's requirements (Sawan & Al Saqqa, 2013). While previous studies have found a consistent Big4 quality effect in different contexts, the findings in current studies of audit reporting errors have been inconsistent (Foroghi & Shahshahani, 2012).

In Jordan, the need for an external audit has become necessary for firms according to the JSC Act. The Directives of Corporate Governance (2017) state that external auditor has great importance in establishing the accuracy and reliable financial reports image in public. These authors also highlight that the recommendations, observations of the external auditor should be submitted to the board to pursue the auditor's observations. Aryan (2015) investigated the relationship among the size of the audit firm and firm profitability using a sample of Jordanian listed firms during 2009-2014, and his findings indicate no significant relationship. He justifies these results as the low quality of audit firms. Similarly, Shanikat and Abbadi (2011) stated that in Jordan, large audit firms and only a few smaller audit firms are controlling the audit market and the quality of these audit firms is also low.

The summary of the previous studies related to auditor quality and firm performance is shown in Table 2.4.

Table 2.4
Summary of Major Previous Studies that Examine Audit Quality and Firm Performance

No.	Author/Year	Sample	Audit Quality (Independent variables)		Significant variables (Main Result)
			Audit Fees	**Audit Firm Size**	
1.	Alali, 2011	Compustat Industrial and Audit Analytics, 2000 to 2006	Audit Fees	-----	Found that higher fees for auditors are related to weak firm performance.
2.	Aryan (2015)	69 Jordan firms, 2009 to 2014	-----	Audit Firm Size	Found that no relationship between audit firm size and firm performance.
2.	DeFond and Zhang (2014)	-----	-----	Audit Firm Size	Argued that big audit firms have a positive impact on the quality of audit services that lead to enhance firm performance.
3.	Foroghi and Shahshahani (2012)	54 Iranian firms, 2001 to 2010	-----	Audit Firm Size	Found no association between the size of an audit firm and the accuracy of going-concern reporting.
5.	Martinez and de Jesus Moraes (2014)	300 Brazil firms, 2009 to 2011	Audit Fees	-----	Found that higher audit fees companies as a signal to market which companies audited high audit quality that lead to enhance firm performance.
6.	Sayyar et al. (2015)	Malaysian firms, 2003 to 2012	Audit Fees	-----	Found an insignificant relationship between audit fees and ROA. Also found that an audit fee is significantly and positively related to Tobin's Q.

2.8 Board Ownership (Moderator) and Firm Performance

Baron and Kenny (1986) described a moderator as "a qualitative or quantitative variable that affects the direction and/or the strength of the relationship between the independent and the dependent or criterion variable" (p. 1174). Additionally, the study of Olsen (2007) mentioned that may be a moderator influence the direction or degree of the two variables relationships, however, cannot responsible for the causing of the observed relationship. If a moderator variable both interacts with the independent variables and is directly related to the dependent variable, that variable is often termed a quasi-moderator (Sharma, Durand, & Gur-Arie, 1981).

Moderator variable can be defined as a variable (z) that can change the relationship between the independent variable (x) and the dependent variable (y). The moderator variable is used to create an interaction term by multiplying it with (x) variable and that new variable then use asthe independent variable (Tang, Yu, Crits-Christoph & Tu, 2009). Numerous studies have been conducted on the issue of moderating governance factors worldwide (Corten, Steijvers, & Lybaert, 2017; Gallucci, D'Amato, & Santulli, 2015; Kouki & Guizani, 2015; Panicker, Mitra, & Upadhyayula, 2016; Ratnawati & Hamid, 2017; Wang & Shailer, 2017; Yeon, 2016). These studies have aimed to ascertain if board ownership is a moderator variable in the association among board characteristics, parameters and performance of listed firms in Jordan.

Numerous studies (Alabdullah et al., 2014; Amer, 2016; Johl et al., 2015; Hidayat & Utama, 2017; Kutum, 2015) used the corporate governance (specifically board characteristics) to control the agency problems. Masry (2015) argued that governance mechanisms can be defined as the set of external and internal regulations used to align the interest of directors and managers with the stakeholders of the company to maximize the wealth of compy owners. According to Fama (1980) corporate board the central body of an organization to monitor the managers and to control the activities of the company. It is the responsibility of the board for the major business decisions of the company. If its structure ensures independence from management, then the board can serve as a good monitoring device for shareholders. Pertinent characteristics of the board, including board size, the percentage of non-executive or outside directors on the board, the separation of the roles of the chairman and CEO and board meetings, have been seen as essential and have been examined in several studies.

In the current business environment, the root cause of agency problems is the difference of interest of directors and managers. Directors' ownership work as a tool to align their interest with other stakeholders of the company (Murigi & Kamau, 2014). Akpan and Amran (2014) claimed that when the board of directors owned any type of shares of the company then their decisions will directly affect their own wealth. Moreover, if the shares owned by the directors is a part of their compensation then the effect of and wrong decision of directors becomes more severe for them.

As discussed earlier there are two hypotheses of board ownership namely, entrenchment effect and convergence of interest (Desoky & Mousa, 2012; Firdaus & Kusumastuti, 2015; Itturalde et al., 2011; Marimuthu, 2017; Park & Jang, 2010; Vintila & Gherghina, 2014).'Convergence of interest' proposition refered that board ownership binds the interest or benefits of the managers and directors with the owners and other stakeholders of the company and ultimately increase the firm performance. Therefore, if the directors have high share ownership they tend to make decisions that increase the wealth of stockholders because doing so will also maximize their own personal wealth.

Hence, board ownership is considered as animportant tool to control the conflict of interest by aligning the interest of both parties of the organizations. Based on this argument several types of the research reported a positive relationship among board ownership and firm performance (Firdaus & Kusumastuti, 2015; Liu, Hsueh, & Wu, 2017; Park & Jang, 2010).

Other scholars (i.e. Firdaus & Kusumastuti, 2015) investigated the relationship between performance and ownership of the board and found that board ownership has a non-linear relationship with firm performance. The further added that firm performance increased with 0%-5% board ownership, firm performance decreased with 5%-25% board ownership. Similar results also reported by Morck et al. (1988). Board ownership higher than 25% also positively contribute to the firm value. However, Morck et al. (1988) found the negative and insignificant relationship among 25% board ownership and firm performance.

In line with this, another research (Lie et al., 2017) reported evidence for a board ownership positively influnec the performance of a company. Moreover, using a sample of 251 Korean listed firms during 2001-2006 Park and Jang (2010) reported empirical evidence for the positive impact of directors' ownership on firm value. A study of Đức and Thủy (2013) found that when board ownership varied within the 0% to 22% range, this resulted in decreased firm performance. When board ownership exceeded 22%, this increase resulted in increased firm performance. This outcome confirms a non-linear relationship among corporate governance and board ownership.

On the other hand, the followers of the entrenchment effect argued that board ownership has negative and insignificant effects on firm performance (e.g., Itturalde et al., 2011; Marimuthu, 2017; Nath, Islam, & Saha, 2015). Khan, Ullah, and Shah (2012). These researchers also argued that firm performance decreased with board ownership. The main reason behind this negative relationship is that when board members owned a large proportion of ownership they become more power to extract rent from the company resources that will benefit them at the expense of minority shareholders. Therefore, large board ownership results in high managerial power which ultimately harms the performance of the company. In simple words, the entrenchment effect indicates that a high level of board ownership has negative or non-linear effects on firm financial performance (Firdaus & Kusumastuti, 2015; Khan & Nouman, 2017). High level of board ownership causesthe extra cost to the company as well as when managers have a large proportion of share they have voting power to increase the benefits of their own position (Fama & Jensen, 1983). Managers with largeownership can prolong their stay in the company by influence the board decision.

To put it plainly, an abnormal state of administrative proprietorship has a negative effect on the firm. Scholars investigated the relationship between insider ownership and performance of firms using data of 586 in-listed Spanish firms by applying a time-series cross-sectional approach (Itturalde et al., 2011). The findings of their research indicate thata range of ownership lies among 0%-35%, as the ownership increases theperformance of firm increases. As the ownership incentives of insiders increase the reasons to work for value maximizations of stakeholders becomes high. However, insider ownership negatively influences the value of the firm when the ownership lies between 35%-70%.

Likewise, a study Pakistani firms listed on KSE during 2008-2012 found that board ownership has negative effects on firm performance (Sheikh & Khan, 2016). A significant and non-monotonic relationship is revealed by the Vintila and Gherghina (2014) by using a sample of Bucharest stock exchange. They argued that firm performance increased with a certain level of board ownership (5%-25%) and performance start decreasing if ownership higher than 25%. Another study conducted by the Mandacı and Gumus (2010) in Turkey used two types of ownership namely, five blockholders and managerial ownership. Theyreported that management ownership has no significant relationship with performance of a firm.

The mixed evidence of existing literature makes it difficult to conclude the effect of board ownership on performance. It is also possible that reverse causality exists between these variables means that ownership structure affects the firm performance and firm performance also affect the ownership structure. Hence, the existing literature of managerial ownership and firm performance filed to reach a point.

The summary of the previous studies related to board ownership and firm performance is shown in Table 2.5.

Table 2.5
Summary of Major Previous Studies that Examine Board Ownership and Firm Performance

No.	Author/Year	Sample	Board Ownership	Significant variables (Main Result)
1.	Desoky & Mousa (2012)	96 Egypt firms, 2010	Board Ownership	Found no relationship between board ownership and firm performance when measured by ROA and Tobin's Q.
2.	Iturralde, Maseda, & Arosa (2011)	586 Spain firms, 2006	Board Ownership	Found that if insider ownership was between 0 and 35%, increases in ownership will result in higher firm performance. On the other hand, if insider ownership was between 35% and 70%, the performance of firms falls when their percentage of ownership increases.
3.	Mandaci & Gumus (2010)	203 Turkish firms, 2005	Board Ownership	Found no statistically significant relationship between board ownership and firm performance.
4.	Nath, Islam, & Saha (2015)	9 Bangladesh firms, 2005 to 2014	Board Ownership	Found that board ownership was negatively associated with Tobin's Q but was not significant. On the other hand, board ownership was positively associated with ROA, but it was also not significant.
5.	Sheikh & Khan (2016)	189 Pakistan firms, 2008 to 2012	Board Ownership	Found a negative relationship between board ownership and firm performance.
6.	Vintila & Gherghina (2014)	334 Roman firms, 2009 to 2011	Board Ownership	Found a positive relationship between 0% and 5% with firm performance; an increasing relationship between 5% and 25%; and a decreasing relationship beyond 25%.

2.9 Control Variables

In previous literature, some variables, such as firm size and leverage, have been studied as control variables. Previous studies (Azeez, 2015; Chiang & Lin, 2011; Herly & Sisnuhadi, 2011; Khan & Javid, 2011; Makhlouf, Laili, Ramli, Al-Sufy, & Basah, 2018; Saibaba & Ansari, 2011; Zureigat, 2011) have tested leverage and firm size as control variables with firm performance when investigating the determinants of firm performance. Therefore, in line with prior studies, the current study considers leverage and firm size as the selected control variables.

2.9.1 Firm Size

Firm size is widely used as control variable in studies of firm performance. Researchers (Ahmed & Hamdan, 2015) stated that existing literature is full of empirical evidences about the relationship between firm performance and corporate governance, stil the findings are unable to provide a solid direction and effect of corporate governance and firm performance. Prior studies on corporate governance have extensively considered size as a control variable (see, Jackling &Johl, 2009; Al-Matari et al., 2012; Loderer & Weelchli, 2010; and Shan & McIver, 2011). Evidence suggests that larger firms harness public support, escape regulators' scrutiny, enjoy greater economies of scale and win laudable ratings.

Scholars have attributed different parameters for measuring company size. Zadeh and Eskandari (2012) measured company size by the number of employees. A more prominent measurement has been used in numerous studies, for example, Sanda, Mikailu, and Garba (2010) said that it is the book value of total assets. It is expected that firm size would be positively related to firm performance because bigger companies normally have more market power. Some studies have used the natural logarithm of sales (Isik, Unal & Unal, 2017). Firm size has also been calculated by the natural logarithm of total assets (Azeez, 2015; Ferrer & Reynald, 2012). For instance, Azeez (2015) and Ferrer and Reynald (2012) found a significantly positive relationship between firm size and firm performance. On the other hand, Muhammad et al. (2016) found no association between firm size and firm performance.

2.9.2 Leverage

Another widely used control variable is leverage. Several empirical studies have used this variable for studying the correlation among corporate governance and firm performance (AlGhusin, 2015; Chaghadari, 2011; Chiang and Lin, 2011; Kang and Kim, 2011; Khatab, Masood, Zaman, Saleem, & Saeed, 2011; Najid and Abdul Rahman, 2011; Wahla et al., 2012). These studies have found that debt affects the financial performance of the firm. Firm leverage was calculated by Makhlouf et al. (2017) by the division of total liabilities divided total assets (total liabilities/ total assets). Debt ratio is measured in terms of the ratio between the total sum of long-term debt and short term/extended liability by total assets. Debt ratio affects the company's outcomes. If the effect is high, then it may lead to diminished cash flows and had been revealing the company more in the market.

Based on the agency theory, Jensen and Meckling (1976) claimed that firms should have the leverage to reinforce their monitoring costs, like an increase in debt levels. Effective boards and committees can oversee management. The agency theory predicts that increasing the level of leverage leads to a corresponding increase in board effectiveness. Besides, adverse consequences of debt can result from the failure or the cost of agency fees of debt (Jensen, 1993). The present study measures leverage by dividing total liabilities with total assets.

Fauzi and Locke (2012), Lama (2012) and Olokoyo (2013) concluded that high leverage would result in lowering the firm's ROA, but on the other hand, it can improve Tobin's Q. This reveals that increase in debt might have a negative effect on a firm's accounting performance, but positively influence market measurement of firm performance.

Ferrer and Reynald (2012), Muhammad et al. (2016) and Yilmaz &Buyuklu (2016) stated that leverage has a negatively significant relationship with firm performance. Arora & Sharma (2012) found leverage to be negatively related to ROA. This implies that firms with low leverage are more likely to perform better. Azeez (2015) concluded that there is no relationship among leverage and firm performance.

2.11 Underpinning Theories

The present study employs the agency and resource dependence theories to underpin the relationship among corporate governance and board ownership (moderator) on the performance of firms listed on the ASE in Jordan.

2.11.1 Agency Theory

The agency theory illustrates the relationship among the principal and the agent, which in the context of this study, is translated into the relationship among the owner and the manager (Jensen & Meckling, 1976). These two positions are different in firms today and provide the background for the agency theory. Organizations currently involve ownership that is widely dispersed when it comes to the shareholders. These shareholders also have no say in the company's daily management, and thus, an agent is appointed to oversee the management of the company. As agents and principals are of two different positions, conflict of interests can arise between them. This, as indicated by Jensen and Meckling (1976) and Eisenhardt (1989), would necessitate some form of resolution that would incur costs.

The agency theory posits that management is always inclined to attain personal benefits and satisfy its interests while disregarding the interests and value of the shareholders. As an example, management may attempt to obtain luxurious items whose cost is borne by the owners, such as lavish offices and expensive company cars. As such, the agency theory's primary aim is to assure that the efforts of the managers will satisfy both their interests and those of the shareholders.

Agency problems emerge following a conflict that occurs between the goals of the principal and those of the agents, and on the principal's part, presenting evidence on the activities performed by agents can be difficult or costly (Eisenhardt, 1989). As Jensen and Meckling (1976) posited, principals do not have the capacity to monitor the performance of the agents, and this notion has sparked debates. The pursuit of self-satisfaction on the management's side is a cost to the firm. In particular, thecost is incurred during contract formulation, the decision-making of agents and the agents monitoring and controlling of a company. Such management behavior will ultimately demonstrate firm performance (Bandiera, Hansen, Prat, & Sadun, 2017).

Shleifer and Vishny (1986), Fama and Jensen (1983), Fama (1980), and Williamson (1988) believed the mechanisms of corporate governance can govern the opportunistic behavior of management. These scholars further added that external and internal mechanisms can both reduce agency costs, which Ibrahim and Samad

(2011) supported. As the agency theory posits, the governance of a firm is made possible through different internal and external mechanisms (Dharmastuti & Wahyudi, 2013).

By means of these mechanisms, Gul, Sajid, Razzaq, and Afzal (2012) stated that the interests of both the agent and the principal can be aligned, and thus, the best interests of the shareholders can be preserved. The authors further added that these mechanisms could reduce agency costs. Demsetz and Lehn (1985) also agreed with this rationale. According to these authors, the primary aim of corporate governance is to solve agency problems. This could be achieved by monitoring both management behavior and the process of financial reporting. This step, according to Demsetz and Lehn (1985), is more effective than directly improving firm performance. Therefore, succinctly put, corporate governance mechanisms have the capacity to: minimize agency costs and preserve the interests of shareholders by supervising the behavior of the management and aligning the interests of the management with those of the shareholders.

In Gul et al.'s (2012) related study, other structures of governance that utilize devices for control, handle and monitoring, such as audits and evaluations of performance, have been proposed for reducing agency costs and preserving the shareholders' interests. They encompass board members who are truly independent, i.e., they are not executive managers of the company, and aligning the interests of the CEO and executive directors with the interests of the shareholders by means of stock ownership (Donaldson, 1990). Governance mechanisms discussed in the pertinent literature encompass the board directors and a structure of ownership to ensure that the interests of the agents and the principals are aligned.

Meanwhile, scholars who have studied the board of directors as an aspect of governance, including Barka and Legendre (2016) and Kamarudin, Ismail and Samsuddin (2012), have brought to light the matters of size and independence of board and the separation of the positions of chairman and CEO, to improve the effectiveness of the entire supervision process. Many of these governance mechanisms have been shown to be effective in certain contexts.

As Fama and Jensen (1983) and Fama (1980) indicated, the audit committee can be a crucial part of the board of directors' internal system control. As stipulated by monitoring requirements, external audits and audit committees (Fama, 1980) are both necessary. The studies on management ownership have concentrated on how to compensate the managers to bind their interest with the the interest of shareholders (Davis, Schoorman, & Donaldson, 1997).

Using its mechanisms, corporate governance clearly protects shareholders by providing adequate supervision of the management. This concept is in line with the corporate governance codes in the UK. Therefore, governance mechanisms, including the board directors, audit committees and external auditors, enable a close watch of the actions and behavior of the management. Improvement of the corporate governance structures may be made, provided that their function as a control instrument is emphasized and explicated. In a nutshell, the ciritical role of corporate governance is to reduce the agency conflicts within the company. Accordingly, Fama and Jensen (1983) stated that the above-mentioned role of corporate governance will help to maximize the quality of financial disclouser and firm perfroamcne.

From the agency theory context, the structures of corporate governance in firms are viewed as significant instruments to limit agency problems. In addition, Burton (2000) showed that agency costs are best monitored by reducing management opportunism by the establishment of structures to control and monitor the behavior of management. Additionally, grounded on the agency proposition the current study examined the effect of corporate governance dimensions (i.e. board characteristics, ownership structure, presence of an audit committee and audit quality) ofn performance of Jordan firms. Additionally, this study also identifies if directors limit the effectiveness of a firm's governance. This study inspects the effect of board ownership as a moderating variable.

2.11.2 Resource Dependence Theory

The main idea of resource dependence theory is that how companies compete in the market on the basis of their resources. The association of this theory with the current study is how corporate governance is useful in providing the resources that will helpfull in the business market. More specifically, the board of directors isa source of knowledge and management skills when they are linked with other organizations. Or in sample words board interlocks more unique resource to the company. According to scholars (Hillman & Dalziel, 2003; McGregor, 1960; Pfeffer, 1972) directors are the main source of knowledge, access to other organizations, and financial markets. Resources of the board of directors are categorized into two main types namely, social capital and human capital. Social capital refers to the directors' links with other organizations and how these resources useful for the companies, human capital refers to the directors' cognitive abilities like education, quality of education, experience and others (Certo, 2003; Westphal & Zajac, 1994). Researchers used the board capital term for both social and human capital (Hillman

& Dalziel, 2003). Relationship between firm performance board capital is widely studied in the existing literature by numerous scholars (i.e. Dalton, Daily, Ellstrand, & Johnson, 1998; Pfeffer, 1972).

However, the existing studies used the resource dependence theory to investigate the resources provided by a large or small board. For example, Pfeffer (1972) stated that board is a source of resource provision and larger boards lead to more resources, hence, board size affects the firms' activities and requires the more outsiders on the board. When a large number of outsiders sit on the board they have different human capital and social capital, so they can contribute to the board proceedings more effectively. Several studies investigated the resource provision function of the board and firm performance (Dalton, Daily, Johnson, & Ellstrand, 1999). According to Psaros (2009), corporate governance should be considered as a function of resource provision, as different dimensions of corporate governance bring unique resources to the company. As the ownership structure of the company, different authors bring a variety of resources to the company to make the business more unique. An organization can compete in the market on the basis of unique human capital and their unique social capital. Because all the strategic decisions are passed through the boarding tunnel and the quality of board capital ultimately affect the firm performance (Hillman, Cannella & Paetzold, 2000; Pfeffer, 1972).

Moreover, resource dependence theory also considered that foreign owners bring unique management skills and experience to the board and add value to the company by their resources (Hillman et al., 2000). Foreign owners not only provide managerial skills but also open the doors to expand the business in international markets and access to new technology and cheaper labor. All these actors have a positive effect on firm performance.

2.12 Chapter Summary

The second chapter reviews the literature related to this study, such as an overview of firm performance, an overview of corporate governance, corporate governance in Jordan and the theories related to this study. The rationale of how board ownership acts as a moderator is also explained. Finally, this chapter provides more details on the relationship among corporate governance mechanisms (i.e., board characteristics, ownership structure, presence of an audit committee and audit quality) and firm performance. This chapter also guides the researcher to develop some hypotheses and develop a framework of study in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Based on the underpinning theories and relevant literature discussed in the previous chaptr, the current chapter develop the framework of the research. The framework of the study is supported by the relevant literature which leads to the development of research hypotheses. After developing the research hypotheses, the research methodology like, measurement of variables and data analysis methodology is also discussed in this chapter.

3.2 Theoretical Framework

Corporate governance and firm performance have received increasing emphasis, both in practice and in academic research (Darwish, 2012). Several governance codes have been developed because of the recent economic crisis. Under the patronage of OECD, Jordan has developed its own framework (Al-Akra et al., 2010).

The current research focused on the corporate governance of Jordanian firms because the corporate governance in Jordan is developing and changing continuously (EBRD, 2017; Abdullatif & Al-Khadash, 2010; Abed et al., 2012).

Corporate governance is considered as best tool ofcontrolling and monitoring mechanisms to reduce and overcome the agency conflicts to resolve agency problems, which may occur between the managers and shareholders. In relationship to firm performance with the nearness of corporate administration components, viable corporate administration structures will improve the observing of the board and limit the event of fumble or distorting and unfavorable budgetary revealing procedures (Miloud, 2016). Having said that, good corporate governance should be considered to be a mechanism limiting agency conflict, particularly when considering the entire interests of stakeholders, is necessary.

Investigations related to corporate governance are commonly grounded on agecy theory, meanwhile, firms use their corporate governance structure to reduce agency problems. Hence, all dimensions of corporate governance (i.e. ownership structure, board structre and board committees) are structured in way to achieve monitoring as well as financial goals of the company. Such mechanisms may eradicate the conflict within firms as McGee (2007) and Afify (2009) have argued. Additionally, rigorous corporate governance mechanisms can also improve the overall performance of a firm as Sarkar and Sarkar (2012) illustrated.

Framework of the current study is based on two theories namely, agency theory and resource dependence theory. These theories are used in the context of corporate governance to offer comprehensive insights and a deeper understanding of the objectives of this study. With regards to the context of corporate governance and under the agency theory, companies should be managed in the best interests of the public as a whole and social responsibly to limit the conflicts arising between the managers and shareholders (Lee, 2009). Resource dependence theory was used to suggest effective structures of corporate governance within companies that lead to the generation more of resources like a board of directors; these resources are all considered as board capital (Hillman & Dalziel, 2003).

The current study used dimensions of corporate governance (i.e., board characteristics, ownership structure, presence of an audit committee and audit quality) to analyse that whether these dimensions influence the performance of the companies or not. Additionally, this study is concerned about identifying if directors and managers limit the effectiveness of a firm's governance. This study examines the effect of board ownership as a moderating variable.

Selection the most appropriate board variables proposes in this study framework, that best address the firms' corporate governance problems peculiar and irregular to Jordan and introducing a moderating variable board ownership that will strengthen the inconsistent conflicting relationship among corporate governance and firm's performance indirectly, as suggested Aliyu, Jamil, Zuriana, and Mohamed (2014). There is a paucity of studies that use board ownership as moderating variable that captures board control or monitoring role which addresses the Jordanian firms, hence the need to be introduced into these inconclusive findings.

Due to the financial crisis that hit the globe, the mid-2000s saw a renewed academic interest in the field of corporate governance and firm performance. However, most researches conducted globally and Jordan, in particular, resulting in contradicting findings such as convenience samples, limited scope, board variables' inconsistent operationalization and usual focus primarily on the direct correlation between firm performance and board variables, thus ignoring the indirect path. Studies in the Jordanian context which adopts a moderating variable that captures board control or monitoring role are very rare, hence the need to be introduced into these inconclusive relations/findings.

3.2.1 Conceptual Framework

Previous studies have examined the relationship among attributes of the board of directors and ownership structure with the timeliness of financial reports to a limited extent (Alabdullah, 2016; Alabdullah et al., 2014; Alaryan, 2017; Al-Zaidyeen & AL-Rawash, 2015; Al-Najjar, 2015; Hamdan & Mushtaha, 2011; Nimer et al., 2012) However, little attention has been given to the relationship among corporate governance characteristics and firm performance, specifically for board characteristics, ownership structure, the occurrence of an audit committee and audit quality, which may enhance the firm performance.

In figure 3.1 of the research framework, four models are summarized for these studies. The first model explores the impact of corporate governance mechanisms (ownership structure, board characteristics, presence of audit quality and committee) on the performance of the firm using ROA. The second model explores the impact of corporate governance (ownership structure, board characteristics, presence of audit quality and committee) on the performance of the firm by using Tobin's Q. the Third model explores the moderate impact of board ownership on the relation among firm performance and firm governance by using ROA. Fourth and last model explore the moderate impact of board ownership on the relationship between firm performance and firm governance by using Tobin's Q.

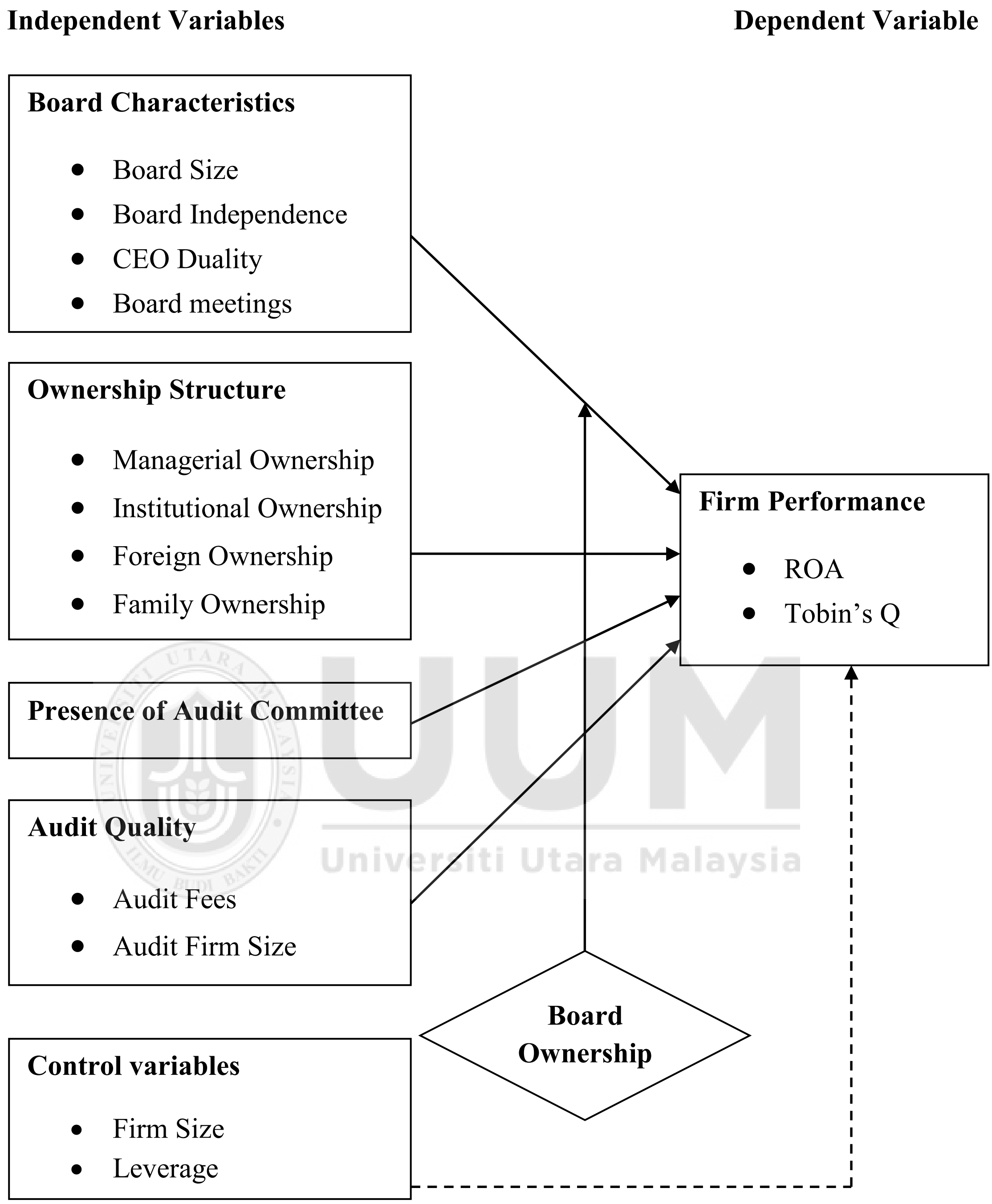

Figure 3.1. *Research Framework*

3.3 Hypotheses Development

After defining the framework of the study, this section discusses the relationship between the independent and dependent variables in formulating the research hypotheses. This section discusses the association between the four groups of independent variables highlighted above (i.e., board characteristics, ownership structure, presence of an audit committee and audit quality) and firm performance. In addition, the moderating effect of board ownership on the relationship between corporate governance and firm performance is presented in this section.

3.3.1 Relationship between Board Characteristics and Firm Performance

Several studies have emphasized the importance of the characteristics of the board directors with respect to corporate governance mechanisms (Al-Sa'eed, 2013; Yasser, Entebang, & Mansor, 2011). Furthermore, to check the performance of managers and reduce potential agency problems, the high-level decision makers of companies conduct initiatives to ensure that the managers of the companies are performing their duties well. These are essential for managing an organization and a critical mechanism for the companies (Hassan & Halbouni, 2013; Nyamongo & Temesgen, 2013).

This section discusses several characteristics of the board that is expected to influence firm performance based on the agency theory perspective that was discussed in Chapter Two. This is followed by a discussion on the association between each variable of board characteristics and firm performance.

3.3.1.1 Board Size and Firm Performance

The Code of Corporate Governance in Jordan for the shareholding firms listed on the ASE has stipulated that the number of board members should be at least five and but not more thirteen (JSC, 2009). Prior studies have studied the role of board size in improving firm performance (Alabdullah, 2016; Alaryan, 2017; Aldehayyat et al., 2016; Ansong, 2015; Bermig & Frick, 2010; Ghasemi & Ab Razak, 2016; Kalsie & Shrivastav, 2016; Menteş, 2011; Wahba & Elsayed, 2014).

The empirical evidence has indicated that the board directors play a significant role in managing a firm and its related activities. Nevertheless, no consensus has emerged regarding an optimum board size or whether a large or small board is better (Fauzi & Locke, 2012; Monks & Minow, 2011).

The literature has provided two opposing perspectives regarding the relationship betweenthe size of the board and the performance of a firm. The first and most widely believed viewpoint is that a limited board size improves firm performance (Alnasser, 2012; Nyamongo & Temesgen, 2013; Jensen, 1993). Jensen (1993) argued that companies with a large-sized board tend to be less effective. Thus, having a small board is better because having a larger board may be unproductive and the chairman of the board might dominate in that instance (Jensen, 1993). Furthermore, several studies (e.g., Kota & Tomar, 2010; Malik & Makhdoom, 2016; Saeed, Murtaza, & Sohail, 2013) have presented empirical proof supporting the supposition of agency theory that an adverse relationship exists among a large board and firm performance. Several empirical studies in both developed and emerging markets have supported this viewpoint and have reported that a large board and firm performance are negatively associated (e.g., Gill & Obradovich, 2012; Nyamongo & Temesgen, 2013; O'Connell & Cramer, 2010; Vo & Phan, 2013).

The second perspective opines that larger boards may benefit by providing companies a variety of people, which aids in reducing environmental uncertainty and securing critical resources (Fauzi &Locke, 2012; Monks & Minow, 2011). A varied range of expertise could be found on bigger boards, which helps to monitor the actions of management more efficiently (Waweru, 2014) Furthermore, several studies (e.g., Ahmed & Hamdan, 2015; Bermig & Frick, 2010; Muhammad et al., 2016; Wahba & Elsayed, 2014) have found a positive and significant relationship among board size and firm performance. Conversely, other scholars including Ghabayen (2012) and Kalsie and Shrivastav (2016) found no significant association among the two variables.

By looking at the scenario of Jorden, the study conducted by Alabdullah (2016) used Jordanian data to analyze whether firms performed better when they had a large board and greater managerial ownership. The result of this study presented that longer board size had a significant impact on the performance of firms belonging to the services sector on the ASE. On the other side, Abed et al. (2012) argued that when the board of Jorden firm becomes too large, there is a weakness occurred in the functions of monitoring of the directors of the board in Jordanian firm. They describe the result of their study to the presence of more than 14 members on the board. These results seem consonant with the thought process of the Corporate Governance Code (2009) that ASE issued, which recommended that a board should not more than13 members. Thus, the following hypotheses are proposed:

H1: *There is a negative relationship between board size and firm performance.*

H1a: *There is a negative relationship between board size and firm performance (ROA).*

H1b: *There is a negative relationship between board size and firm performance (Tobin's Q).*

3.3.1.2 Board Independence and Firm Performance

As agency theory posits, unsupervised corporate ownership can cause self-fulfilling behaviors among the managers (Jensen & Meckling, 1976). Thus, to offset the agency issues generated by the assumed independence of managers in comparison to the executive directors, non-executive directors would have a better capacity to perform more efficient monitoring and control tasks, which will eventually improve the performance of a firm (Iskandar et al., 2011).

According to the study of Iskandar et al., (2011) mentioned that, in some countries like the United States, the United Kingdom, Australia, Canada, and Belgium, independence of directors of the board have been extensively researched in the relationship towards company performance. The independence of directors of the board is associated with the occurrence of non-executive directors, who have been already referred to as external directors.

However, the results of the studies on the effects independent directors have been inconsistent as previous studies have had mixed results. Studied conducted by (Ahmed & Hamdan, 2015; Barka & Legendre, 2016; Malik & Makhdoom, 2016; Rutledge et al., 2016; Saeed et al., 2013) have shown the significant positive relationship among the presence of external directors on the board and performance of a firm.Others have shown no significant relationship (Iskandar et al., 2011;

Orazalin et al., 2015). The outcome of Muhammad et al. (2016) and Al-Matari et al. (2012) research found that the independence of the board was an inverse relationship with firm performance.

Ameer, Ramli, & Zakaria (2010) empirically demonstrated that boards with a high level of percentage of foreign and outside directors are allied with greater performance as opposed to boards in which most non-executive and internal executive directors were related to one another.

Furthermore, Al-Matari et al. (2012) mentioned that there is a negative relationship existed among the board composition and the performance of Kuwait listed non-financial firms for 2009. They concluded that the negative value showed the lower is the performance of the firm andthe higher the value of the composition of the board.

The Jordanian Code of Corporate Governance issued in 2009 defines an independent member as "a member of the board of directors who are not tied to the company or any of its upper executive management, affiliate companies, or its external auditors. This can be through any financial interests or relationships other than his/her shareholding in the firm that may be suspected of bringing that member benefits, whether financial or incorporeal, or that may affect his/ her decisions or lead to the exploitation of his/ her position with the firm" (JSC, 2009, p. 5). The ASE policy states that the board directors of Jordanian listed firms must include independent members to assure the availability of objective decisions. These independent members contribute to ensuring the balancing of the influences of all the parties, including those of the principal shareholders and the executive management, to certify that the decisions taken are consistent with the best interests of a firm (ASE, 2009; CJB, 2008). Alaryan (2017) stated a positive relationship between firm performance and board structure. On the other hand, Alabdullah et al. (2014) claimed that there is no significant relationship between these variables while using a data of ASE listed firms. They concluded that no significant relationship existed between the independent board (outside directors) and firm performance. Thus, the following hypotheses are proposed:

H2: *There is a positive relationship between board independence and firm performance.*

H2a: *There is a positive relationship between board independence and firm performance (ROA).*

H2b: *There is a positive relationship between board independence and firm performance (Tobin's Q).*

3.3.1.3 CEO Duality and Firm Performance

As the literature has discussed earlier, the research on corporate governance has indicated conflicting viewpoints with regards to CEO duality. As agency theory posits, CEO duality minimizes the monitoring function of the board directors with respect to top management, and this minimization may adversely impact firm performance (Levy, 1981). In line with this postulation, Cabo and Rebelo (2014) perceived that separating the CEO and chairman of the board positions could generate effective CEO monitoring and control. The authors further argued that failure in doing so (CEO separation) may lower the performance of the firm. Ujunwa (2012) supported this contention, stressing that the separation of CEO from the position of the chairman of the board is required to assure board effectiveness and efficiency and firm value.

The impact of duality on several corporate performance measures has also been analyzed, but the outcomes have been conflicting. For example, Al-Matari et al. (2012) found CEO duality to have a significant and positive association with firm performance. On the other hand, Issarawornrawanich (2015) documented a negative and significant link among CEO duality and the performance of a firm. Moreover, Hamid et al. (2014) claimed that duality does not effect the performance of firms.Agency theory required to separate the positions of CEO and chairman as board is mainly responsible for monitoring and controlling management and the CEO. Studies (Dar, Naseem, Niazi, & Rehman, 2011) stated that CEO duality can affect the performance of firms because agency faces problems and problems become more if the same person works for both positions.

In Jordan, aligned with the agency theory, the Jordanian Code of Corporate Governance establishes that the Chairman of the board and the CEO have separate responsibilities. Hence, to steer clear of conflicting interests and to uphold management supervision, two different individuals should fulfill the two positions. If possible, the board should appoint the chairman from among the independent directors (JSC, 2009). They attributed this weakness to the lack of separation among CEO and chairman roles. As such, the following are hypothesized:

H3: *There is a negative relationship between CEO duality and firm performance.*

H3a: *There is a negative relationship between CEO duality and firm performance (ROA).*

H3b: *There is a negative relationship between CEO duality and firm performance (Tobin's Q).*

3.3.1.4 Frequency of Board Meetings and Firm Performance

According to the suggestion of Abed et al., (2012) that more meetings of board directors are more likely to promote the best interest towards company's shareholders because in more meetings, more time, more issues can be dedicated. Issues may be related to the monitoring of management, conflicts of interest and earnings management. On the other hand, fewer meetings promote less interest inthe company's stakeholders and do not have more time to examine or dedicated the complex issues and spent a lot of time in managing plans.

Johl et al. (2015), emphasized an inverse relationship among the number of annual board meetings and previous year performance highlighted that there is an increase occurred in the board meetings because of poor firm performance. He explicitly highlighted that after an increase in the board meetings, firm performance became improved. Furthermore, Brick and Chidambaran (2010) investigated the effect of performance of the firm and board activity and stated an inverse relationship among board meetings and previous year firm performance.

A board meeting is an agency monitoring mechanism and superior governance can be attained increasing the frequency of board meetings. Albeit some earlier research has investigated the relationship among corporate components and firm performance, to the best of this current specialist's information, just a few examinations have been devoted with the impact of executive gathering recurrence on the company performacne. Arora and Sharma (2012) also examined board meetings and concluded that effective meetings are essential to ensure successful board performance.

Some have shown positive relationships among board meetings and firm performance (e.g.., Al-Daoud et al., 2016; Amer, Ragab & Ragheb, 2014; Ansah, 2015; Saeed et al., 2013; Francis, Hasan, & Wu, 2012). On the other hand, several empirical studies have reported that board meetings and firm performance were negatively associated (e.g., Barka & Legendre, 2016; Danoshana & Ravivathani, 2014; García-Sánchez, 2010; Johl et al., 2015; Kamardin, 2009). In a related study, Bhatt and Bhattacharya (2015) demonstrated that board meetings and board attendance were associated with firm performance.

The JCGC (2009) concluded that the directors board in Jorden must conduct at least six meetings in one fiscal year. However, very little research has been conducted in Jordan that has examined the frequency of meetings of the board of directors and their impacts on the performance of the firm. In the context of Jorden, Makhlouf et al. (2014) clearly established the research efforts and suggested that board of directors' meetings and performance of firm and good practices of corporate governance requires the meetings of board of directors regularly to discuss and deliberate the issues of the firm, any matter if arising and also provide new suggestion. Zureigat, Fadzil, & Ismail (2014) stated the average number of meetings in Jorden and reported the average meeting was six, and the maximum was 14 meetings and the minimum was only two. Two are not enough toan increase in firm performance. The result shows that all the firms of Jorden are not listed in compliance with the criteria of the Corporate Governance Code, which reported that six board meetings should be held yearly. Hence, the following are hypothesized:

H4: *There is a positive relationship between board meetings and firm performance.*

H4a: *There is a positive relationship between board meetings and firm performance (ROA).*

H4b: *There is a positive relationship between board meetings and firm performance (Tobin's Q).*

3.3.2 Relationship between the Ownership Structure and Firm Performance

Corporate governance, in its entirety, aims at improving the performance of the firm and ensuring effective administrative performance (Al-Haddad et al., 2011). The ownership structure-corporate performance relationship has been a primary issue among studies of corporate governance (Abu-Serdaneh, Zuriekat, & Al-Sheikh, 2010). Agency theory suggests that models of corporate governance and control differ substantially between countries due to differences in ownership structures and the composition of boards of directors (Li, 1994). The empirical and theoretical studies related to corporate governance suggest that the ownership structure can affect firm performance (Adhari, 2015; Al-Matari et al., 2014; Al-Matari, Al-Matari, & Saif, 2017; Elvin & Hamid, 2016; Kamardin, Latifa, & Mohdb, 2016; Kao, Hodgkinson, & Jaafar, 2018).

To the best understanding and learning of this scientist, few investigations have concentrated on the issue of possession structure and its effect on firm execution of Jordanian firms. Along these lines, without exact examinations on the relationship among possession structure and firm execution in Jordan, this investigation speculates that firm execution is related with administrative proprietorship, institutional proprietorship, outside proprietorship and family possession. Coming up next are the attributes of possession structure which are utilized in this examination.

3.3.2.1 Managerial Ownership and Firm Performance

Based on agency theory, the expectancy level is that there has a significant and negative relationship among management equality ownership and agency problems. When a manager is among a company's owners, he/she will have the same amount of incentive as that of the owner. Such a manager will not engage in risk-taking that will not benefit him. The expectation level is that in the company, the high level of management ownership, lower in the level of conflict of interest. This situation would increase the level of performance of the company (Din & Javid, 2011).

Furthermore, a higher level of managerial ownership can align the interests of the managers with the interests of outside shareholders in a way that managers can be inspired to manifest value-maximizing behavior. Due to the decrease in agency costs, the hypotheses of the current study posit that operating performance and firm value assist in increasing management ownership. In relation to this, Bos et al. (2013) stressed that the rise in managerial ownership will also increase the alignment between managerial interests and those of external shareholders.

Previous studies provide mixed evidences about the management ownership and company perfromacne. For example, Zondi and Sibanda (2015) argued that there is no relationship among the performance of the firm and managerial ownership. He found that managerial ownership doesn't affect the performance of the firm in any way. The overall results of the study don't support the agency theory, as aligning the interest of stakeholders and managers have no effect on company. Li, Sun and Yannelis (2017) suggested that managerial ownership play an important role in the improvement in the financial performance of a company. Scholars (Iskandar et al., 2011) claimed that equity ownership of management positively influence the firm value by reducing the agency cost. Bos et al. (2013) suggested that two-dimensional association means that a certain level of management ownership leads to higher perfromacne and after that certain level the relationship of management ownership with performance of firm becomes inverse.

In Jordanian context, AlFayoumi et al. (2010) investigated the relationship of industrial companies of Jorden among managerial ownership and management earning. These authors claimed that managerial ownership has positive influence on earnings. Alabdullah (2016) highlighted the relationship of the internal corporate governance mechanism of firms represented by board size and the financial performance and managerial ownership of Jordanian companies. The results concluded that managerial ownership does not matter for service companies in the Jordanian context. Jordan has recently given significant attention to consolidating the pillars of corporate governance. Hence, the following are hypothesized:

H5: *There is a positive relationship between managerial ownership and firm performance.*

H5a: *There is a positive relationship between managerial ownership and firm performance (ROA).*

H5b: *There is a positive relationship between managerial ownership and firm performance (Tobin's Q).*

3.3.2.2 Institutional Ownership and Firm Performance

Agency theory relates to the behaviour of agents (managers) and principals (shareholders) clearly defining the viewpoint of firm control and ownership. According to this theory the problems stem when shareholders become dependent on managers to serve on their behalf, resultantly accuring a division among ownership and control (Jensen &Meckling, 1976). In the situation where parties act on self-interest; a conflict of interest increases among managers and shareholders. This sort of conflict is responsible to raise agency cost.

It is widely argued, an important corporate governanace system has been constituted by institutional investors to improve the firm performance. Thereby, institutional investors hold both ability and incentives to discipline and monitor managers of a corporation (Aljifri&Moustafa, 2007; Ping & Wing, 2011). It is a view point that the presence of institutional investor and exercising their power to influence board decisions for engaging in ownership actively and absorbing the cost of monitoring effectively; may positively influence the firm performance (Aggarwal et al., 2011; Heydari et al., 2015). Whereas, Charfeddine and Elmarzougui (2011) revealed that institutional ownership does not always increase the firm performance due to the fact that institutional investors can provide effective monitoring role due to their internal self-interests.

Though empirical studies in the past have analyzed the link among institutional ownership and firm performance by utilizing market and accounting performance metrics, however, the nature of such a relationship is still inconclusive. A segment of prior studies concluded that institutional ownership influence firm performance significantly and positively (e.g., Fazlzadeh et al., 2011; Heydari et al., 2015), whereas, others found the contrary results (e.g., Al-Zaidyeen & AL-Rawash, 2015; Charfeddine & Elmarzougui, 2011). Researchers both in developing and developed countries both show a keen interest in institutional ownership, due to the nature of owners being potentially effective and this characteristic can be an effective monitoring device. Hence, it is expected that investors can imply personal abilities, expertise and resources for monitoring management decisions in a proper way relating to both financial matters and investment; resultantly such activity enhances firm performance (Al-Najjar, 2015).Hence, the following are hypothesized:

H6: *There is a positive relationship between institutional ownership and firm performance.*

H6a: *There is a positive relationship between institutional ownership and firm performance (ROA).*

H6b: *There is a positive relationship between institutional ownership and firm performance (Tobin's Q).*

3.3.2.3 Foreign Ownership and Firm Performance

Agency theory asserts that foreign investors owning a substantial share of an organization can perform a monitoring role causing agency cost reduction and improvement in management, consequently it increases firm performance (Jensen, 1986; Jiang & Yamada, 2011). In this viewpoint, foreign investors need information disclosure of high level and effective accounting practices increasing firm performance. Investors are also responsible for transferring useful and novel technology and knowledge (Ghahroudi, 2011).

Prior research by Ongore (2011) in Kenya and Pervan et al. (2012) in developing and emerging economies in certain context reported that foreign ownership firms outperformed to ownership of other kinds. In this study agency theory was incorporated to determine the link among firm performance and foreign ownership, the results showed a positive relationship same in line with Ghahroudi (2011) and Nakano and Nguyen (2012).

However, studying this relationship in Vietnamian context Phung and Le (2013) and Mihai's (2012) claimed negative relationship of foreign ownership with company perfromacne. Additionally, Mohandi and Odeh's (2010) using agency theory found a positive impact of foreign ownership on quality of financial statements in Jordanian context. Moreover, the Government of Jordan revised the existing and issued many new laws such as bank law (2000) and privatization instructions to encourage and fetch investment from foreigners.

The JSC has addressed a strategy to encourage and attract foreign investments in the country's capital markets (JSC, 2009). One strategic objective was to promote efficiency, transparency and fairness in the market, and to ensure a high level of earnings quality by the adoption of a higher level of conservatism and the reduction of information asymmetry among managers and shareholders (Hamdan, 2012; & Zureigat, 2011). Zureigat (2011) recommended that the JSC maintain its ongoing strategy to encourage and attract foreign investments in Jordanian listed firms, to adopt new instructions that could attract foreign investments, and create a level of audit quality reflected in high-quality financial reports. This study posits the following hypotheses:

H7: *There is a positive relationship between foreign ownership and firm performance.*

H7a: *There is a positive relationship between foreign ownership and firm performance (ROA).*

H7b: *There is a positive relationship between foreign ownership and firm performance (Tobin's Q).*

3.3.2.4 Family Ownership and Firm Performance

As agency theory posits, family ownership is particularly effective in minimizing agency issues because shares are controlled entirely by agents who are in a specific relationship with other decision agents that allow for the control of agency problems without having management and control decisions separated (Fama & Jensen, 1983). Additionally, family members have several dimensions of exchange with each other over a lengthy period, and, due to this, they benefit from supervising and controlling the associated decision agents (Fama & Jensen, 1983). Górriz and Fumás (1996) further added that agency costs are lessened when only a small number of shareowners perform the entire process of decision-making on their own. As Shleifer and Vishny (1997) clearly expressed, being owner managers motivates them to supervise the management and decrease agency costs related to it. Consistent with the above, several empirical studies such as Charbel et al. (2013), Din and Javid (2011) and Ismail et al. (2016) have found a positive impact of family ownership on firm performance.

Nonetheless, empirical findings related to the impacts of family ownership on firm performance have been mixed. Din and Javid (2011) reported a positive relationship between family ownership and the efficiency of the firms listed on the Karachi Stock Exchange-100 index in Pakistan. They used ROA and ROE to evaluate firm efficiency. Charbel et al. (2013), who examined firms in Lebanon, concluded that family ownership caused a positive performance for firms. On the other hand, Bambang and Hermawan (2012) in Indonesia concluded that a high level of concentrated shareholders by families may reduce corporate performance. Dekker et al. (2015) in Belgium found that significant and positive impacts were imparted by increasing non-family participation, the implementation of human resources control systems and/or decentralization authority, on firm's performance.

In the Jordanian context, listed firms are both family-owned firms and non-family-owned firms. However, family-owned businesses are prevalent businesses. These families have various listed and unlisted firms operating in various sectors. Although these firms seem legally independent, they are related to each other because they are owned by the same family (Nimer et al., 2012). Therefore, the following are hypothesized:

H8: *There is a positive relationship between family ownership and firm performance.*

H8a: *There is a positive relationship between family ownership and firm performance (ROA).*

H8b: *There is a positive relationship between family ownership and firm performance (Tobin's Q).*

3.3.3 The Relationship between The Presence of Audit Committee and Firm Performance

Audit committees significantly contribute to minimizing agency problems (Zahra & Pearce, 1989). As the agency theory presumes, fulfilling managerial responsibilities by both the owners and managers require mechanisms for preserving the interested consistency between the principals and the agents. The same should be observed in supervising the management's performance so that managers can be guaranteed the exercising of their powers in a manner that achieves the interests of the owners. Agency problems worsen when internal or external auditing control is ineffective and when the safeguarding of minority shareholders in transitioning economies is lacking (Emmanuel et al., 2014). In this instance, as Deloitte (2015) indicated, an audit committee may significantly contribute to the effective functioning of a firm.

However, past studies showing mixed results regarding the characteristics of the audit committee. Yasser et al (2011) in their study on firms mentioned on the Karachi Stock Exchange reported a positive link among the presence of audit committee and firm performance. Moreover, the size of an audit committee is found effecting firm performance because of the characteristics of a wide knowledge base and authority (Al-Matari et al., 2012). Alternatively, some studies found a negative relationship between the size of the audit committee and firm performance (Azim, 2012; Amer et al., 2014; Al-Rassas & Kamardin, 2015).

Lastly, some found no relationship as in the case of Chandrasegaram, Rahimansa, Rahman, Abdullah, and Mat (2013) who discussed that audit committee size and firm performance were unrelated.

The Jordanian government in 1998 made establishing audit committee's mandatory for firms filing with the JSC, in an attempt to enhance corporate governance in Jordan, to improve the level of foreign investment and to increase Jordan's involvement in international trade (ASE, 2009; Abdullatif & Al-Khadash, 2010).

Code of Corporate Governance for shareholding companies listed on the ASE in Jordan, notify the responsibilities of audit committee enabling it to monitor and oversee the firms' auditing and accounting activities (ASE, 2009). These responsibilities include meeting with senior financial managers and auditors separately to review external auditor selection, internal and external audit processes and financial report of the company.

Hamdan and Mushtaha (2011) examined the link between the likelihood of a company being given a clean audit report and the characteristics of an audit committee of the ASE listed industrial companies in Jordan. Based on the outcomes of their study, the authors concluded that a positive impact of audit committee existed on the report of the external auditor, which had a positive influence on firm performance. As such, the following are hypothesized:

H9: *There is a positive relationship between the presence of an audit committee and firm performance.*

H9a: *There is a positive relationship between the presence of an audit committee and firm performance (ROA).*

H9b: *There is a positive relationship between the presence of an audit committee and firm performance (Tobin's Q).*

3.3.4 Relationship between Audit Quality and Firm Performance

An external audit refers to an external governance mechanism the role of which involves the review and evaluation of the client's internal controls and the auditing of their financial statements to avoid erroneous financial reporting (Habbash, 2010). An external auditor has been seen as playing a vital role in enhancing firm performance (Schmidt & Wilkins, 2012). Moreover, in a study of Malaysian companies, Hamid and Abdullah (2012) argued that a relationship existed between external audit fees paid in that companies with better corporate governance mechanisms paid lower fees to external auditors than those who had poorer governance mechanisms. Therefore, given the importance of external auditors as an external governance mechanism, this study hypothesizes that the firm performance is associated with audit fees and audit firm size.

3.3.4.1 Audit Fees and Firm Performance

In order to determine the process of audit fees determination Simunic (1980) developed a model, whereas, other research focused on the context in a scenario which audit fee is determined. The literature has investigated the attributes of audit clients influencing the work level and respective audit fee include the dimensions of the clients such as leverage, internal controls, governance, audit complexity, profitability and risk (Hay, 2013; Simunic, 1980; Choi, Kim, Kim, & Zang, 2010). Prior empirical studies on audit fees revealed that the complexity of the sector in which a company performsa business, the dimensions of a company and characteristics of auditors are positively related with audit fees (Choi et al., 2010). Some studies argue that larger companies are charged a higher fee due to possessing a large amount of data to need to be examined, as compared to small firms (Choi et al., 2010). Meta-Analysis research on audit fee measured by total assets and complexity found the positive association company size and audit fee (Hay, 2013).

Hence, past results notify critical explanatory power of firm size variable for audit fees model. However, empirical evidence explaining the relationship between audit fees and corporate performance is limited. Previously, some studies have reported the significant influence of spending on audit services and firm performance (Moutinho et al., 2012; Martinez &de Jesus Moraes, 2014; Stanley, 2011). Similarly, research using United States sample from 2000 to 2008, found a negative relationship among audit fees and firm performance (Moutinho et al., 2012).

Moreover, a study conducted for Brazilian companies, linked audit fee with firm performance and found a positive relationship among these two entities (Martinez &de Jesus Moraes, 2014). Contrary a study Stanley (2011) in the US context found a negative relationship among unexplained audit fees and firm performance. As such, the following are hypothesized:

H10: *There is a positive relationship between audit fees and firm performance.*

H10a: *There is a positive relationship between audit fees and firm performance (ROA).*

H10b: *There is a positive relationship between audit fees and firm performance (Tobin's Q).*

3.3.4.2 Audit Firm Size and Firm Performance

The auditors play an important role to monitor management behavior, resultantly agency cost is reduced (Watts & Zimmerman, 1990). In similar vain Xiao, Yang, and Chow (2004) reported that; as per agency theory; the audit can mitigate the conflict of interest between to contract partners. According to the Same study, that's why management is more interested to hire big audit organization to better monitoring advantages. Moreover, large audit companies come with more talented employees and superior technology; such resources enable them to produce reports of high quality as compared to that of small firms (Chen, Lin, & Siregar, 2018).

Agency theory argues that due to the good reputation large audit firms perform well in order to maintain this reputation (Naser, 1998). Similarly, Francis and Yu (2009) claimed that the reports produced by larger audit firms are of good quality involving few errors as compared to reports from small firms. Similarly, Teitel and Machuga

(2010) found a positive relationship among quality audit and higher earnings; as hiring the services of quality auditor by a firm increases the probability of higher income. Contrarily, Chen, Hsu, Huang, and Yang (2013) claim that procuring the services of larger audit firms reduces firm performance. In a similar way Chen et al. (2013) reported an inverse relationship among audit firm size and earnings management.

In the Jordan context, Shanikat and Abbadi (2011) indicated that big audit firms and a few smaller national firms dominate the Jordanian audit profession. They concluded that audit firms in Jordan were generally of low quality. Aryan (2015) found that there is no relationship between audit firm size and the profitability of firms. As such, the following are hypothesized:

H11: *There is a positive relationship between audit firm size and firm performance.*

H11a: *There is a positive relationship between audit firm size and firm performance (ROA).*

H11b: *There is a positive relationship between audit firm size and firm performance (Tobin's Q).*

3.3.5 Board Ownership as a Moderator in the Relationship between Firms' Governance and Firm Performance

The Jordanian Code on Corporate Governance states that Jordanian firms should adopt the best practices of corporate governance to assure better monitoring ability (Zureigat, 2015). Recently, an increase has occurred in the general level of corporate governance in Jordanian firms, but this has developed at a sluggish speed, which means that firm-level corporate governance quality in Jordanian firms remains unsatisfactory (Al-Najjar, 2010; Abed et al., 2012). Moreover, EBRD (2017) evaluated and estimated the status of corporate governance in Jordan context, concluding that the corporate governance of Jordanian companies is still at a relatively immature stage.

Hence; as per above-stated arguments, the effect of board ownership on firm performance is complex and empirically as well as theoretically ambiguous, therefore past literature shows both curvilinear and linear relations resultantly displaying inconclusive results due to a trade-off between the entrenchment and alignment effects. So according to entrenchment point of view claims a negative or no significant relationship among firm performance and board ownership (e.g., Itturalde et al., 2011; Marimuthu, 2017; Nath et al., 2015) while the alignment viewpoint suggests a positive relationship (e.g., Firdaus & Kusumastuti, 2015; Liu et al., 2017; Park & Jang, 2010).

Moreover, it is argued that stock owned officers and board members avail incentives to ensure a careful management monitoring and run firm efficiently (Brickley, Lease, & Smith, 1988). In the case of officers and board members own considerable holdings in company stock in the shape of direct holdings or stock options; the decision made by officers and board members will impact their own wealth. Further, such decisions of directors for their wealth show a compound effect in the case particularly when their compensation includes company stock or options. This situation enforces them to abstain from reducing shareholders wealth. Hence, to control agency problems, the independence of the board and other monitoring mechanisms proved to be a less important method.

In this current study, board ownership of stock is given special attention because such ownership can affect the effectiveness of corporate governance. Regarding the determinants of the level of corporate governance quality, certain elements can be classified as components of internal corporate governance, namely, board independence, board size, CEO duality and board meetings (Alabdullah et al., 2014; Amer, 2016; Hidayat & Utama, 2017; Johl et al., 2015). Moreover, observational examinations have appeared inner corporate administration systems emphatically impact firm-level corporate administration quality. The findings also assert that firms having good corporate governance practices have a higher performance compared to firms that practice poor corporate governance (Akhidime, 2015; Akle, 2011; Alaryan, 2017; Barros et al., 2013).

The theoretical discussions and the arguments shown above suggest that board ownership may influence the board of director's characteristics (i.e., board size, board independence, CEO duality and board meetings) in reducing firm performance. Therefore, to test if board ownership impedes the effectiveness of the board characteristics, this current study examines the moderating effect of board ownership on the relationship amongthe board of director's characteristics and firm performance. Thus, this study presents four hypotheses as follows:

H12: *Board ownership negatively moderates the relationship between board size and firm performance.*

H13: *Board ownership negatively moderates the relationship between board independence and firm performance.*

H14: *Board ownership negatively moderates the relationship between CEO duality and firm performance.*

H15: *Board ownership negatively moderates the relationship between board meetings and firm performance.*

3.4 Research Design

After explaining the framework of the study and formulating the hypotheses, this section illustrates the sample selection process, sources of data collection and measurement of variables of the study.

3.4.1 Sample

This study covers a three-year period from 2014 to 2016. The main reason for choosing this period is because this study uses the guidelines of Jordanian Code of Corporate Governance (2009) for selecting corporate governance variables, and this code has been effective since November 2009 (Abu Haija, 2012; Hamdan, 2012).

The justification of choosing 2014-2016 years is that in the last few years the performance of Jordanian listed companies was not up to the mark. Moreover, in the same period discussed above the non-financial sector was suffered by a decline in GDP.

Jordan was chosen because the performance of firms in Jordan has experienced negative outcomes and has led to a decrease in the level of financial reporting quality and the loss of reputation for financial statements, consequently jeopardizing the confidence of shareholders and investors in shareholding firms (Al-Sraheen et al., 2014). The Jordan firms are divided into three sectors: 1) services, 2) financial, and 3) industrial sectors. However, this study only covers two of the three sectors – the industrial and services sectors. The financial sector is not a part of this study because it has different regulations related to financial reports, issued by the Insurance Commission and the Jordan Central Bank. The industrial and services sectors comprise about 49% of the Jordanian listed companies on the ASE (ASE, 2017).

Table 3.1
Distribution of the Observations among Various Sectors

Sector	No of observations	No of firm across years		
		2014	2015	2016
Industrial Sector	150	50	50	50
Service Sector	141	47	47	47
Total	291	97	97	97

3.4.2 Data Sources

To achieve the objectives of the present study and to test the associations among corporate governance and firm performance in Jordan, this study employs secondary data as the major source of information, which refers to the data that are obtained from the annual financial reports for each company over the period of 2014 to 2016. These years are selected due to the implementation of the corporate governance policies in Jordan. In addition, this study used secondary data from other resources like ASE and JSC. In examining the relationship among corporate governance and firm performance, adopting secondary data sources is useful because doing so will save time and the costs of accessing data and provide much research information and problem solving (Sekaran, 2003).

3.5 Measurements of the Study Variables

As mentioned in the hypotheses, this study has several variables. This section of the study provides the metrics for the measurement of each variable of the study. The dependent variables are categorized as return on assets (ROA) and Tobin's Q. The independent variables are classified into board characteristics (board size, board independence, CEO duality and board meetings), ownership structure (managerial ownership, institutional ownership, foreign ownership and family ownership), the presence of an audit committee and audit quality (audit fees and audit firm size). The moderating variable is board ownership. The following explains how these variables are measured.

3.5.1 Measurement of the Dependent Variables

Firm performance is the dependent variable tested in this study. Several ways to measure performance may be utilized; studies have divided the performance indicators into market-based and accounting-based measures (Munisi & Randøy, 2013). Overall, a measure commonly used in the literature for the market-based is the valuation of the company as proxied by Tobin's Q (Nguyen, Locke, & Reddy, 2014; Coles, Lemmon, & Meschke, 2012; Khatab et al., 2011; Ammann, Oesch, & Schmid, 2011); while the accounting measures of performance are represented by ROA (Luo, Wang, Raithel, & Zheng, 2015; Munisi & Randøy, 2013; Pathan & Faff, 2013; Wintoki, Linck, & Netter, 2012). ROA has been adopted in previous studies because it helps to address different aspects of performance. Tobin's Q is a proxy for the future performance of the company for current and prospective investors; ROA reflects past performance (Munisi & Randoy, 2013).

This study has adapted the two-measure stated above. The performance indicators will be tested separately; one at a time; to overcome the inherent limitations of any single financial measure. As prior studies suggested, through multiple measures more accurate description of performance can be achieved (Rechner & Dalton, 1991). The literature also endorses strongly for multiple performance measures (Dalton & Kesner, 1985). Although consensus does not exist about a proper measure constitution of firm performance, however, past studies notify two categories of firm performance.

3.5.1.1 Return on Assets (ROA)

Return on assets is measured as net income to total assets ratio (Burca & Batrînca, 2014). ROA indicates a company's assets profitability with respect to its revenue generation. The companies who need large initial investments generally show lower ROA (Hamid, 2008). It is calculated by dividing firm's net income by its total assets (Abdullah, 2004; Noor Afza, 2010; Ilona, 2008; Hsu, 2007; Lin, 2011; Krivogorsky, 2006).

3.5.1.2 Tobin's Q

Tobin's Q is measured by adding the equity market value of the firm and debt book value divided by the book value of a total asset (Jermias & Gani, 2014; Agrawal & Knoeber, 1996). Following the calculation instructions of Amer (2016), due to limited data availability; the study attempts to calculate Tobin's Q ratio by adding market value of equity and the book value of debt dividing by the book value of the total assets.

3.5.2 Operational Definitions and Measurement of Variables

In this study, corporate governance mechanisms are highlighted as significant elements that affect the firm performance. The corporate governance characteristics used in this study are as follows:

3.5.2.1 Board Characteristics

Given the importance of the characteristics of board directors as a component of corporate governance mechanisms, this study employs the following characteristics of the board directors:

Board Size

Board size means the total number of directors on the board of a company including the Chairman and CEO (Abu Haija, 2012). Board size was measured as the total number of board of directors, following numerous studies such as Abed et al. (2012) and Alabdullah (2016).

Board Independence

A board member who is independent refers to a member of the board directors who is separate from the company, executive management, affiliations or external auditors in terms of financial associations or relationships aside from being a shareholder of the company, that may benefit him (financially or incorporeally) and this benefit may impact his decision or enable him to exploit his position (ASE, 2017). Board independence is measured and calculated by the proportion of independent non-executive directors to total board members (Alabdullah et al., 2014).

CEO Duality

Duality occurs when the CEO serves as the chairman of the same firm's board. A dichotomous variable is used in this study for duality, with a score of "1" if the functions of the CEO and chairman are combined and “0” if otherwise (Al-Matari et al., 2012).

Board Meetings

A board meeting is described as a formal gathering of the board of directors that is held at specific schedules in a year to rehash policy issues and problems. The meeting is presided over by the chairman of the board or an appointee and must meet the conditions of the meetings, with the deliberations recorded in minutes. Board meeting is premeditated and calculated as the number of board meetings held in a year (Makhlouf et al., 2014).

3.5.2.2 Ownership Structure

This study examines four types of ownership structure, namely, institutional ownership, foreign ownership, managerial ownership, and family ownership. This study excludes government ownership because the Jordanian economy is considered as a private sector, and state ownership is relatively small (Al-Fayoumi et al., 2010).

Managerial Ownership

Managerial ownership is often used as a variable related to agency problems among firm managers and its shareholders (Shuto& Takada, 2010). Following prior studies, the managerial ownership is calculated as the proportion of the firm's shares owned by the managers (Aygun et al., 2014).

Institutional Ownership

Institutional ownership was measured by dividing institution owned share percentage to its total number of shares (Al-Najjar, 2015). Furthermore, institutional investors include shares owned through social security, insurance companies, investment companies, pension funds and other funds (Al-Najjar, 2015).

Foreign Ownership

Present study incorporates foreign ownership as an additional dimension due to its importance in Jordanian environment, as it is an emerging market (Alkhawaldeh, 2012). As per Klai and Omri (2011) and Zureigat (2011) instructions the foreign ownership was measured by dividing a company's percentage of shares owned by foreigners to its total number of shares.

Family Ownership

Family ownership is also an important cultural aspect in Jordanian firms' ownership structure environment; hence, it is incorporated in this study. It is calculated as dividing the percentage of shares held by families to the gross number of shares the firm offers (Alkhawaldeh, 2012).

For illustrations on the measurement of ownership variables, please refer to Appendix G and H on how managerial, institutional, foreign, family and board ownership are measured for two sample firms Al-Ekbal Printing and Packaging Co. and Petra Education Company.

3.5.2.3 Audit Committee

The audit committee is measured in the present study by the existence and presence of an audit committee in a firm. This dichotomous variable is coded "1" if the firm has an audit committee and "0" if otherwise. Previous studies, such as Gulzar and Wang (2011), have used this metric.

3.5.2.4 Audit Quality

This study highlights the following characteristics of audit fees and audit firm size as follows:

Audit Fees

The remuneration provided to the auditor in the current year is the auditor's fees and it is calculated as the natural log of fees paid for the services of audit (Moutinho et al., 2012).

Audit Firm Size

The researcher uses the audit firm size measurement adopted in Aryan (2015) study, where he considered the firm as "big" if it is one of the Big 4 firms or if it is affiliated with international entities, and "0" if otherwise. This study considers audit firms as "1" if big and "0" if small.

3.5.2.5 Control Variables

The current study considers the leverage and firm size as the selected control variables.

Firm Size

Firm size measured by the natural logarithm of total assets (Azeez, 2015).

Leverage

Firm leverage was calculated by dividing the total liabilities by total assets. Debt ratio is measured in terms of ratio between total sum of long-term debt and short term/extended liability by total assets. Debt ratio affects the company's outcomes (Makhlouf et al., 2017).

3.5.3 Measurement of Board Ownership (Moderating Variable)

In this study, board ownership is considered the most important dimensions of ownership structure and acts as a moderating variable, which, in turn, verifies whether the ownership structure influences the firm performance. Moreover, board ownership affects the degree of congruence between the interests of owners and the board or management (Murigi& Kamau, 2014).

There are many ways to calculate board ownership. Some studies have calculated it by taking a proportion of shares owned by directors. This study follows the instructions of Amer (2016) according to which board ownership is measured by calculating a proportion of shares owned by directors over total number of shares outstanding in a particular year.

3.6 Models of the Study

3.6.1 Multiple Regression Analysis

In this study, two models were used to investigate the influence of corporate governance mechanisms on the firms' performance.

Model 1 (Return on Assets (ROA) model) tests the interaction of board characteristics, ownership structure, presence of audit committee and audit quality on return on assets.

The association among independent variables and return on asset is represented as follows:

ROA

$= \beta_0 + \beta_1 SIZE_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \varepsilon_{it}.$

Model 2 (Tobin's Q model) tests the interaction of board characteristics, ownership structure, presence of audit committee and auditor quality on Tobin's Q.

The association among independent variables and Tobin's Q is represented as follows:

Tobin's Q

$= \beta_0 + \beta_1 SIZE_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \varepsilon_{it}.$

3.6.2 Hierarchical Regression

The moderating variable in the current study is board ownership. This study investigates the moderating effect of board ownership on the relationship among the characteristics of the board of director characteristic and firm performance. Therefore, to achieve this objective, multiple hierarchical regression analysis is conducted to test the moderating effects (Baron & Kenny,1986; Frazier, Tix, & Barron, 2004).

Following Baron and Kenny (1986), using multiple hierarchical regression the data of this study are regressed in three steps. In the first step, the main independent variables together are regressed on the dependent variable. In the second step, the moderator variable is introduced. Finally, all of them (i.e., independent variables, moderator and the interaction between the independent variables and the moderator) are regressed on the dependent variables. The structural equations of the two models are as follows:

Model 3 - Return on Assets as the dependent variable:

ROA

$$= \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \beta_{14} BOW_{it} * BSIZ_{it} + \beta_{15} BOW_{it} * BIND_{it} + \beta_{14} BOW_{it} * CEO_{it} + \beta_{14} BOW_{it} * BMET_{it} + \varepsilon_{it}.$$

Model 4 – Tobin’s Q as the dependent variable:

Tobin’s Q

$$= \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \beta_{14} BOW_{it} * BSIZ_{it} + \beta_{15} BOW_{it} * BIND_{it} + \beta_{14} BOW_{it} * CEO_{it} + \beta_{14} BOW_{it} * BMET_{it} + \varepsilon_{it}.$$

3.7 Statistical Analyses

This study used various statistical tests, namely, regression, correlation analysis and descriptive statistics to test the association among corporate governance mechanisms and firm performance. In addition, correlation analysis is used to check which variables have strong and weak correlation with the dependent variable and to check the multicollinearity among independent variables (Hair, Black, Babin, & Anderson, 2010). This study employs hierarchical regression analysis to test the moderating effect, which is the impact of board ownership as a moderating variable on the association among corporate governance and the firms' performance.

3.8 Chapter Summary

Chapter three is regarding the proposed methodology to conduct the study. This chapter has discussed the theoretical and conceptual framework of the study supported by underpinning theory. Directional hypotheses are also developed in this study with theoretical and empirical evidence from prior academic literature. The justification of measurements of the variables along with the authors who previously utilized them are also mentioned. In addition, industrial and services firms listed on ASE are selected for data collection. Operational model and definition of terms are elaborated concisely. Last but not the least, the chapter also discussed the units of analyses and statistical techniques accordingly, e.g. multiple regression, descriptive statistics, and hierarchical regression.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The main objective of this chapter is to provide the results of the data analysis related to the models of this study that is return on asset (ROA) and Tobin's q (Tobin's Q) models. It also reports the moderating effect of the performance of Jordanian firms. This chapter is divided into seven sections, organized as follows: Section 4.2 shows the sample and data collection of the study. The descriptive analysis of the data is presented in Section 4.3, followed by Section 4.4 on the findings of the regression assumptions. Section 4.5 reviews and discusses the multiple regression analysis. Section 4.6 presents the results of the hypotheses testing and Section 4.7 reviews the summary of regression analysis. The results of the moderating effect of board ownership are presented in Section 4.8, and finally, a summary of the chapter is offered in Section 4.9.

4.2 Sample and Data Collection

The target sample of the study is ASE listed firms. ASE is divided into three subsectors namely, services, financial and industrial sector. The current sectors cover only services and industrial sectors because both sectors are following the Corporate governance standards issued by the JSE. While the financial sector is governed by the Central bank of Jirdan with different set of regulations. The current study choose firms that were listed on ASE during 2014-2016. For this study, collection of data through the annual reports of the selected companies. As the annual reports are available on the companies' website.

As at the end of 2016, there were 198 listed firms; 47 services sector firms (24%), 50 industrial sector firms (25%) and 101 financial sector firms (51%). As mentioned above, this study covers two sectors, namely, the industrial and services sectors. The financial sector is excluded because it has different regulations related to financial reports, issued by the Insurance Commission and the Jordan Central Bank. From the sample of this study, 7 firms did not have annual financial reports for the years ended 2014 to 2016. Those companies with missing governance mechanisms or financial data were also excluded from the sample. The final sample represents 90 firms or 270 observations (from 2014 to 2016). The details of the sample of the study can be seen in Table 4.1:

Table 4.1
Descriptive of Sample

Sectors	**Number of firms**
Industry sector	50
Service sector	47
Total	97
Unavailable	(7)
Sample	90
Final sample (90*3)	270

4.3 Descriptive Statistics

Table 4.2 presents the descriptive statistics (i.e., maximum, minimum, mean and standard deviation.) of the independent and dependent variables, using data from 270 firm-years of industrial and services sector firms of the Amman Stock Exchange for the period of 2014 to 2016. For the dependent variable, this study used ROA and Tobin's Q to measure the firm performance. In Table 4.2, the mean value for the market valuation measured by Tobin's Q is 1.188 with a minimum value of 0.00 and maximum of 3.25. With regards to the accounting performance measure, the mean for the ROA is 2.6%.

Table 4.2

Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
BSIZ	270	4.00	13.00	8.044	2.347
BIND	270	0.00	0.80	0.318	0.124
CEO	270	0.00	1.00	0.163	0.370
BMET	270	4.00	18.00	7.989	2.590
MOW	270	0.00	0.53	0.041	0.100
IOW	270	0.00	0.99	0.374	0.324
FOW	270	0.00	0.98	0.128	0.232
FAOW	270	0.00	0.95	0.118	0.194
ACM	270	0.00	1.00	0.844	0.363
AUF	270	3.00	4.97	4.023	0.289
AUFS	270	0.00	1.00	0.367	0.483
FS	270	5.99	9.08	7.466	0.606
LAV	270	0.00	0.94	0.323	0.212
ROA	270	-0.23	0.31	0.026	0.075
Tobin's Q	270	0.00	3.25	1.188	0.740
BOW	270	0.00	0.97	0.458	0.259

BSIZ= Total number of board size, BIND= Board independence, CEO= Dummy variable, 1 if CEO-Chairman roles combined; 0 if separate. BMET= Number of board meetings held during the financial year, MOW= proportion of the shares owned by managers, IOW= proportion of shares owned by institutions, FOW= Percentage of shares owned by foreigners, FAOW= percentage of shares owned by families, ACM= Dummy variable, 1 if the firm has an audit committee and; 0 otherwise, AUF= Natural log of fees paid for the services of audit, AUFS= Dummy variable, 1 if Big 4; 0 otherwise, FS= Natural logarithm of firm 's total assets, LAV= leverage, ratio of total debts to total assets, ROA= Return on assets, calculated as net income divided by total assets of the firm . Tobin's Q= the result of the market value of equity plus the book value of the debt divided by the book value of the total assets, BOW= proportion of shares owned by directors.

The results in Table 4.2 show that the mean value of board size (BSIZ) is 8.044 members with a maximum and a minimum of 13 and 4, respectively. These results are consistent with a previous study that was conducted in Jordan by Alabdullah (2016), who found that the average board size of Jordanian firms is 8.95 members. Board independence (BIND), on average, is 31.8%, with a maximum value of 80% and a minimum value of 0%. Some of the boards are not at all independent. These findings imply that Jordanian companies generally follow the Jordanian corporate governance codes (2009), which recommend that a majority of board members should be independent from the management. The results support the previous studies in Jordan (Alabdullah et al., 2014).

For CEO duality (CEO), the descriptive statistics also show that on average, 16.3 % of Jordanian listed companies have duality of leadership structure, which infers that almost one-fifth of the firms (i.e., 44) in this study have double roles of CEO and chairman. This means that most of Jordanian firms comply with the corporate governance instructions which states that CEO and chairman roles should be different and separated. The result of the board meetings (BMET) in Table 4.2 indicates that the mean number of board meetings, which was held during the year is 7.989 with a minimum of four and a maximum of 18. Generally, the Jordanian firms follow the requirements of the Jordanian Corporate Governance Code (i.e., at least four meetings per year) (ASE, 2017).

Regarding to the ownership structure, the mean value of managerial ownership (MOW) is 4%. This result is almost close to Alzoubi (2016) who examined Jordanian firms and found the average at 7.6%. Average value of MOW found in this study (and compared with other Jordanian studies) is consistent with those values that are reported by studies in other countries. For example, Aygun et al. (2014) who examined Turkish firms and found a mean of managerial ownership of 5.7%. Fama and Jensen (1983) have confirmed that managerial ownership can negatively affect the agency relationship (among the shareholders and managers) and managerial ownership is considered a major source of significant agency costs.

The descriptive statistics reported that the mean of institutional ownership (IOW) in this study was 37.4%, representing a moderate proportion of shares in Jordanian listed firms. Such percentage constitutes approximately one-third and more of the total shares, and as such, it provides the institutional investors with power to control the companies (Zureigat, 2011). Furthermore, the average number of shares held by foreign investors in the country is 12.7% indicating a low percentage of shares. This is consistent with the findings reported by Al-Najjar (2015) and Alzoubi (2016) which report that the average institutional ownership in Jordanian firms is 44.3%, while the average foreign ownership is also 15.1%.

The average of family ownership (FAOW) in the current study is 11.8%. This finding is lower than the findings of Nimer et al. (2012) who reported that the mean of family ownership in all industrial companies mentioned on the Amman Stock Exchange (ASE) was 16.4%. This difference is due to the sample and the study period.

The mean value of the presence of an audit committee (ACM) in this study is 84.4% ranging between 0 to 1.00%. These results indicate that the majority of Jordanian firms (i.e. 228 firms) are in line with the Jordanian Code of Corporate Governance which recommends the Jordanian firms to develop an audit committee to increase the effective performance of the boards of directors. This result is supported by Abu Haija (2012) using data of Jordanian listed firms. They found that 55% of the firms comply with the rules of corporate governance that require the board of directors to establish an audit committee.

In terms of audit quality, the result shows that that the mean of natural log audit fees (AUF) in this study sample was 4.02, whereas the minimum and maximum values were 3.00 and 4.96 respectively. A total of 99 (36.7%) company-years were audited by Big 4 audit firms and the remaining 171 (63.3%) were audited by non-Big 4 audit firms. This supports by the results of the study by Zureigat (2011) using data of

Jordanian listed firms. They found that 45.3 % of their sample firms were audited by a Big 4 auditor.

In terms of the control variables, the average firm size, as measured by natural log total assets of a firm is 7.47. This ratio is similar toAlabdullah (2018) who reported that the average of Jordanian firms was 7.29. Furthermore, it appears that the average leverage is .32, with a minimum and a maximum of 0.001 and 0.94, respectively. The average leverage is better compared to the ratio found by Makhlouf et al. (2017), who reported that the mean of leverage in Jordanian listed firms is 35%. The reason for this difference is due to the difference in the study period, where their study was between of 2009 to 2013.

As presented in Table 4.2, the results show that the mean of board ownership (BOW) in this study sample was 45.8%, whereas the minimum and maximum values were 0.00% and 97.4% respectively. This supports by the results of the study by Sartawi et al. (2014) they found that the mean of board ownership in Jordanian list firms is approximately 53 % of their sample firms. Makhlouf et al. (2017) who found that the mean of board ownership is 46%.

4.4 Regression Assumptions

A data analysis for the study model is based on the regression analysis. Hwoever, before applying the regression the assumptions of regression must be fulfilled. Therefore, all the regression assumptions like, linearity, normality, multicollinearity, heteroscedasticity and autocorrelation (Coakes& Steed, 2003; Hair et al., 2010) are fulfilled in this study.

4.4.1 Outliers

Outliers are observations which have unique characteristics that make them different from other observations (Hair et al., 2010). There are several methods to check for outliers. In this study, the case of outliers was detected using the Mahalanobis distance test, a widely used method to detect for any outliers. There is a problem of outliers if the Mahalanobis distance values exceed a critical value obtained from statistical tables (Chi-square) (Tabachnick& Fide, 2007). This study finds that the critical chi-square value, using the number of independent variables as the degrees of freedom, is 36.12 at alpha level of .001; the maximum and minimum value of Mahalanobis of all the observations ranged between 3.651 and 50.553, for the ROA and Tobin's Q, which indicates the existence of outlier observations. The result is shown in Table 4.3.

Table 4.3
Test of Mahalanobis Distance and Cook's Distance Value

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.117	.185	.026	.051	270
Std. Predicted Value	-2.777	3.085	.000	1.000	270
Standard Error of Predicted Value	.007	.024	.013	.003	270
Adjusted Predicted Value	-.118	.192	.0261	.051	270

Table 4.3 (Cont.)
Test of Mahalanobis Distance and Cook's Distance Value

	Minimum	Maximum	Mean	Std. Deviation	N
Residual	-.165	.154	.000	.054	270
Std. Residual	-2.970	2.768	.000	.974	270
Stud. Residual	-3.043	2.940	-.001	1.006	270
Deleted Residual	-.173	.181	-.000	.057	270
Stud. Deleted Residual	-3.093	2.985	-.001	1.011	270
Mahal. Distance (ROA)	**3.651**	**50.553**	**13.948**	**7.648**	**270**
Mahal. Distance (Tobin's Q)	**3.651**	**50.553**	**13.948**	**7.648**	**270**
Cook's Distance (ROA)	**.000**	**.136**	**.005**	**.011**	**270**
Cook's Distance (Tobin's Q)	**.000**	**.054**	**.004**	**.007**	**270**
Centered Leverage Value	.014	.188	.052	.028	270

The identification of outlier observations requires an in-depth examination of the SPSS package results saved in the data by comparing the value of Mahalanobis distance to the value of 36.12. This comparison shows that only sex observations for ROA and Tobin's Q models with Mahalanobis distance values ranging between 36.9124 and 50.5527 were deemed as outliers among 270 observations - these six represent a negligible ratio. According to Coakes and Steed's (2003) suggestion, the outlier observation should be dropped from the data as this may affect the results' reliability. The analysis has detected six outliers which were removed from the main dataset. Accordingly, the final observations for the model are 264 (see Table 4.4).

Table 4.4
Test of Mahalanobis Distance and Cook's Distance Value

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.119	.188	.0265	.053	264
Std. Predicted Value	-2.717	2.997	.000	1.000	264
Standard Error of Predicted Value	.007	.020	.013	.003	264
Adjusted Predicted Value	-.126	.193	.0266	.0539	264

Table 4.4 (Cont.)

Test of Mahalanobis Distance and Cook's Distance Value

	Minimum	Maximum	Mean	Std. Deviation	N
Residual	-.158	.142	.000	.0525	264
Std. Residual	-2.939	2.638	.000	.973	264
Stud. Residual	-3.015	2.716	-.001	1.003	264
Deleted Residual	-.1672	.151	-.000	.0559	264
Stud. Deleted Residual	-3.066	2.751	-.002	1.009	264
Mahal. Distance (ROA)	**3.633**	**35.277**	**13.947**	**6.792**	**264**
Mahal. Distance (Tobin's Q)	**3.633**	**35.277**	**13.947**	**6.792**	**264**
Cook's Distance (ROA)	**.000**	**.041**	**.004**	**.008**	**264**
Cook's Distance (Tobin's Q)	**.000**	**.058**	**.004**	**.007**	**264**
Centered Leverage Value	.014	.134	.053	.026	264

4.4.2 Multicollinearity

Multicollinearity detect the correlation among variables. Scholars (Hair etal., 2012; Tabachnick&Fidell, 2007) stated that if the correlation among variables is higher than 0.90 then the problem of multicollenaerity is exist. In the current study multicollinearity is tested using two methods Pearson correlation and variance inflation factor.

The Pearson Correlations shown in Table 4.5 indicated that the highest level of correlation was between audit fees (AUF) and firm size (FS) at 0.637 and between family ownership (FAOW) and managerial ownership (MOW) at .627. The correlation, on the other hand, is between board ownership (BOW) and institutional ownership (IOW) at 0.590. In the present research, the values of correlation for all variables is less than the suggested criteria 0.90 which shows that multicollinearity is not exist in this model.

The second way to test the multicollinearity is by testing the Tolerance and variance inflation factor (VIF). It is not necessarily to detect the Multicollinearity by looking to the correlation's matrix between variables (Hamilton, 2009). The high VIF value refers to a high degree of collinearity or multicollinearity between the variables. According to Hair et al. (2010), the tolerance (TOL) should be above 0.10 and (VIF) should be less than 10 to indicate no multicollinearity between the independent variables. As reported in Table 4.5, there is no multicollinearity between the variables of this study. Table 4.6 shows that the values of VIF range from 1.164 to 3.608 and the values of tolerance range from 0.277 to 0.859. These results indicate that multicollinearity is not a problem in this study.

Table 4.5

Pearson Correlation Coefficients

	Correlations															
	BSIZ	BIND	CEO	BMET	MOW	IOW	FOW	FAOW	ACM	AUF	AUFS	FS	LAV	ROA	Tobin's Q	BOW
BSIZ	1															
BIND	-.280***	1														
CEO	-.107*	.086	1													
BMET	.001	.261***	.034	1												
MOW	.157**	-.018	.293***	.037	1											
IOW	.111*	-.057	-.216***	.048	-.292***	1										
FOW	-.033	.153**	.021	.009	-.013	.307***	1									
FAOW	.129**	-.071	.044	-.069	.627***	-.382***	-.085	1								
ACM	.067	.191***	.015	.106*	.085	.122**	.154**	.139**	1							
AUF	.207***	.075	-.079	.133**	-.081	.489***	.291***	-.280***	.063	1						
AUFS	.172***	.139**	-.120*	.159***	-.008	.307***	.205***	-.031	.135**	.487***	1					
FS	.426***	.048	-.092	.236***	-.006	.345***	.177***	-.188***	.154**	.637***	.348***	1				
LAV	.059	.032	-.144**	.230***	-.196***	.124**	-.055	-.290***	-.078	.247***	.023	.290***	1			
ROA	-.021	.399***	.222***	.236***	.183***	.007	.316***	-.020	.422***	.128**	.204***	.285***	-.186***	1		
Tobin's Q	-.090	.321***	.163***	.286***	.283***	-.104*	.211***	.200***	.233***	.170***	.244***	.165***	.043	.463***	1	
BOW	.279***	-.051	-.123**	.031	.180***	.590***	.250***	.251***	.164***	.233***	.265***	.189**	.001	.056	.133**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.6
Testing for Multicollinearity for ROA and Tobin's Q Models

Variables	Tolerance	VIF
Board Size	.636	1.573
Board Independence	.756	1.323
CEO Duality	.806	1.240
Board Meetings	.830	1.205
Managerial Ownership	.498	2.010
Institutional Ownership	.277	3.608
Foreign Ownership	.810	1.235
Family Ownership	.351	2.851
Audit Committee	.859	1.164
Audit Fees	.423	2.365
Audit Firm Size	.691	1.448
Firm Size	.446	2.241
Leverage	.767	1.305
Board Ownership	.346	2.891

4.4.3 Normality

This study uses the kurtosis and skewness values to check the normality of all the variables. Skewness and kurtosis are among the most common methods in describing the shapes or distribution of a data set. This study transformed total assets (as a measure of company size) by using the natural log to ensure that the variables are normally distributed. According to Kline (1998), normality means that the distribution of the error (or residual) is normally distributed. To test the normality of all variables in the two models, the skewness and kurtosis values are used. The data are considered reasonably normal if the skewness values are lower than three and kurtosis values are lower than 10. As evidenced in Table 4.7, all kurtosis values of all the variables are lower than 10; and skewness values of all the variables are lower than three. Therefore, the data has no serious violation of the normality assumption.

Additionally, the normality assumption is also confirmed by using graphs, such as the histogram and normality plot. The normal probability plot, a graphical technique for normality testing, is used to assess the data set's approximate normal distribution. For this, data was plotted against a theoretical normal distribution in a manner that the points form an almost straight line. Deviations from this straight-line show deviations from normality. The normality of all variables of this study can be seen from the graphs as shown in Figure 4.1and Figure 4.2.

Table 4.7
Normality Test for ROA and Tobin's Q Models

	N	Skewness		Kurtosis	
	Statistic	**Statistic**	**Std. Error**	**Statistic**	**Std. Error**
Board Size	264	.398	.150	-.696	.299
Board Independence	264	.326	.150	2.037	.299
CEO Duality	264	1.875	.150	1.526	.299
Board Meetings	264	1.532	.150	2.045	.299
Managerial Ownership	264	3.046	.150	9.164	.299
Institutional Ownership	264	.376	.150	-1.183	.299
Foreign Ownership	264	1.928	.150	2.884	.299
Family Ownership	264	2.456	.150	6.567	.299
Audit Committee	264	-1.914	.150	1.677	.299
Audit Fees	264	1.182	.150	2.677	.299
Audit Firm Size	264	.536	.150	-1.726	.299
Firm Size	264	.375	.150	.667	.299
Leverage	264	.938	.150	.512	.299
Return on Assets	264	.051	.150	2.815	.299
Tobin's Q	264	.797	.150	-.197	.299
Board Ownership	264	.021	.150	-1.086	.299

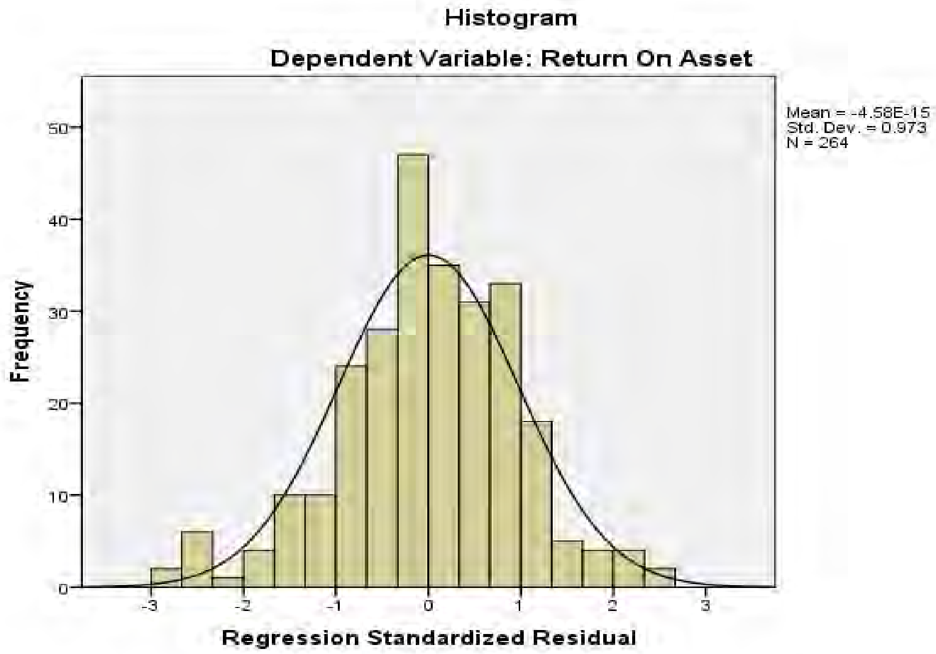

Figure 4.1
Histogram (DV: ROA)

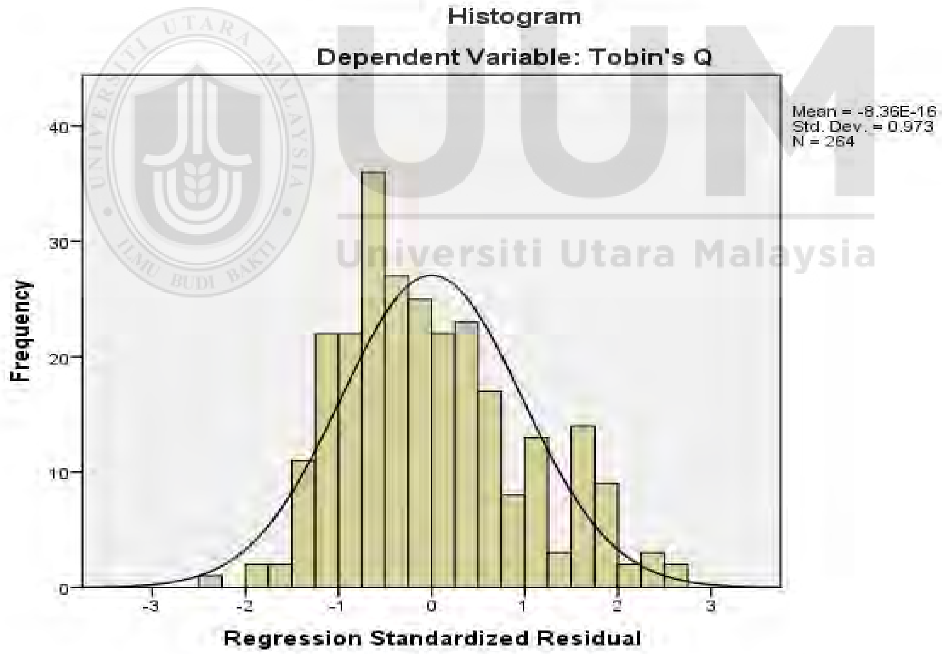

Figure 4.2
Histogram (DV: Tobin's Q)

4.4.4 Linearity

In common usage, the linearity assumption indicates a relationship between all variables which can be graphically described by a straight-line passing through the data cloud (Tabachnick&Fidell, 2007). However, correlation represents only the linear association between variables; thus, the non- linear effect will not be presented in the correlation value. The strength of the relationship will be underestimated under the presence of nonlinearity (Hair et al., 2010). Nevertheless, this study has utilized Normal P-P Plot to examine the residual plots. Figure 4.3 for ROA model and Figure 4.4 for Tobin's Q shows that the relationship between residuals and predicted values is not clear, which means no problems of linearity assumption.

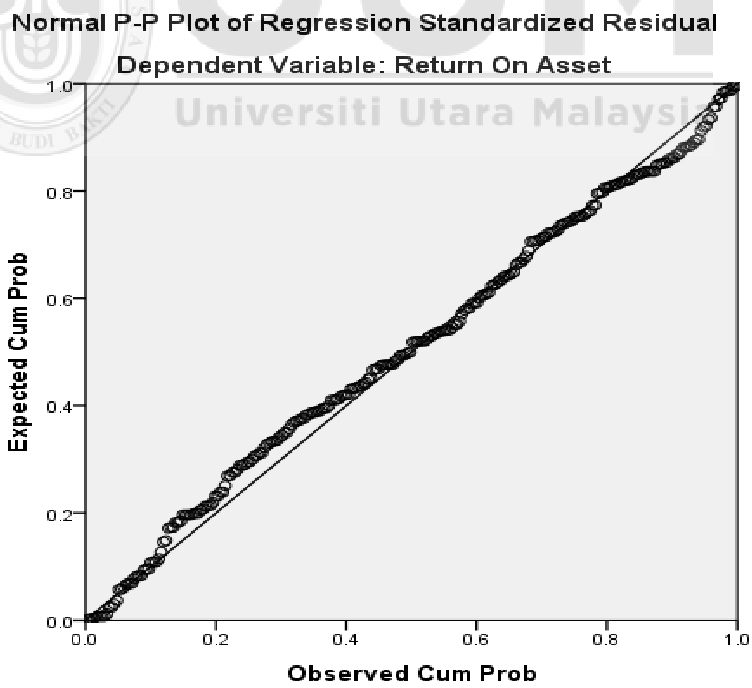

Figure 4.3
Histogram of the Regression Residuals (DV: ROA)

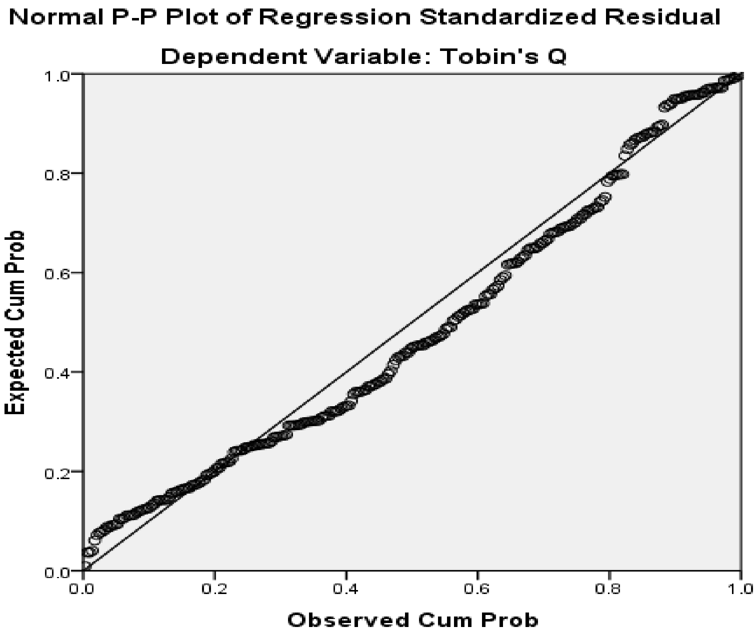

Figure 4.4
Histogram of the Regression Residuals (DV: Tobin's Q)

4.4.5 Autocorrelation

The presence of autocorrelation is checked using Durbin-Watson statistics, a test to detect the existence of autocorrelation in the residuals from a regression analysis. Acoording to Kazmier (1996), an acceptable value for Durbin-Watson statistics ranges from 0 to 4 - a value below 1.4 indicates the presence of a stronger positive series problem of correlation among sample data, and a value higher than 2.6 indicates the presence of a stronger negative series problem of autocorrelation. As presented in Table 4.8, the value of Durbin-Watson of the ROA Model is 1.984 and 1.835 for the Tobin's Q model. Thus, there is no problem of autocorrelation among sampled data.

Table 4.8
Autocorrelation Test for Models ROA and Tobin's Q.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	**Durbin-Watson**
ROA	.716[a]	.513	.485	.0540564	**1.984**
Tobin's Q	.608[a]	.369	.334	.6079737	**1.835**

4.4.6 Heteroscedasticity

To check the existence of heteroscedasticity, residuals were plotted against the predicted value to determine whether the error terms have constant variances. The distribution of residuals can be shown from the Scatter plot Graph as offered in figures (Figures 4.5 and 4.6). According to the results of the test for heteroscedasticity, it can be seen from figures (Figures 4.5 and 4.6) that the scatter of our data does not form a certain style and data is scattered around the null number. The scatter plot graphs refer that the data used in this study (full sample) are considered free from heteroscedasticity (Hair et al., 2010).

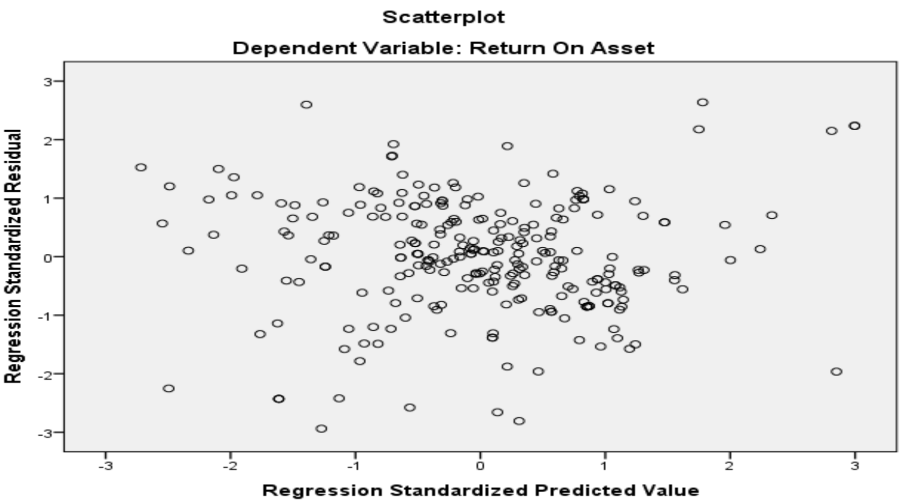

Figure 4.5
Scatter Plot of the Residuals (DV:ROA)

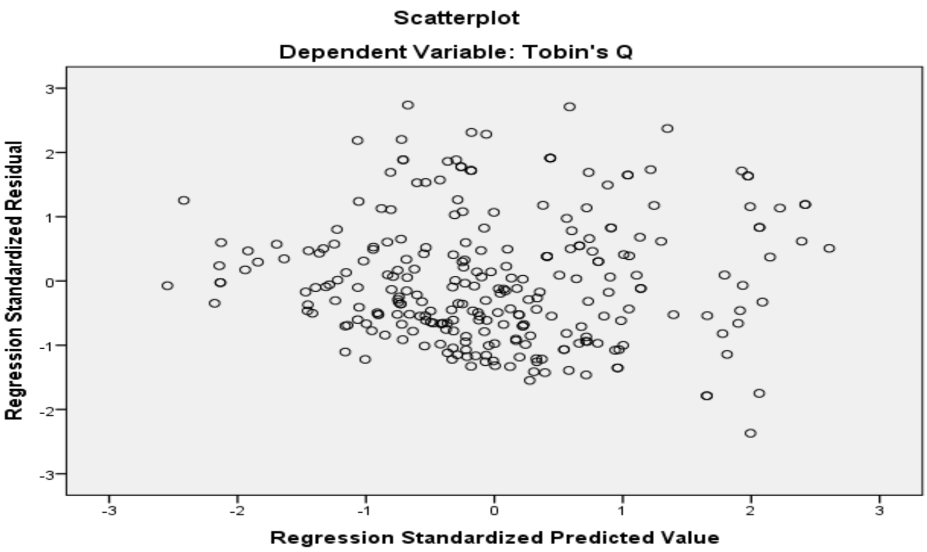

Figure 4.6
Scatter Plot of the Residuals (DV: Tobin's Q)

4.5 Regression Analysis

The current study applied the multiple regression method to empirically test the proposed relationship of the study. The dependent variable of this research are Tobin's Q and ROA. The econometrics models of the study are depicted in the following equaitions

Model 1- Return on Assets (ROA)

ROA

$= \beta_0 + \beta_1 SIZE_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it}$

$+ \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \varepsilon_{it}.$

Model 2- Tobin's Q

Tobin's Q

$= \beta_0 + \beta_1 SIZE_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it}$

$+ \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \varepsilon_{it}.$

The variables are defined in Table 4.9. They are classified into independent variables and dependent variables. The table also shows the hypotheses related to the variables as well as the expected direction of the hypotheses.

Table 4.9
Variable Description and Expected Direction for ROA and Tobin's Q Models

Variables	**Definition of Variables**	**Expected Direction**	**Relevant Hypotheses**
Dependent Variables			
ROA	Return on assets, calculated as net income divided by total assets of the firm.		
Tobin's Q	Tobin's Q calculated as the result of the market value of equity plus the book value of the debt divided by the book value of the total assets.		
Independent Variables	**Definition of Variables**	**Expected Direction**	**Relevant Hypotheses**
Board characteristics			
BSIZ	Board size measured by total number of board of directors.	-	H1
BIND	Board independence measured by ratio of non-executive directors to the total number of directors on the board.	+	H2
CEO	CEO duality measured by 1 if CEO-Chairman roles are combined; 0 if they are separated.	-	H3
BMET	Board meetings measured by the number of board meetings held during the financial year	+	H4
Ownership Structure			
MOW	Managerial ownership calculated as the proportion of the firm's shares owned by the managers.	+	H5
IOW	Institutional ownership measured by percentage of shares owned by institutions to the total number of shares issued.	+	H6
FOW	Foreign ownership measured by percentage of shares owned by foreigners to the total number of shares issued.	+	H7

FAOW	Family ownership measured by percentage of shares owned by families to the total number of shares issued.	+	H8
ACM	Presence of audit committee, measured by a dummy variable, is 1 if a firm has an audit committee, and 0 if otherwise.	+	H9
Independent Variables	**Definition of Variables**	**Expected Direction**	**Relevant Hypotheses**
Audit Quality			
AUF	Audit fees, the natural log of fees paid for audit services (in thousands).	+	H10
AUFS	Audit firm size, 1 if a Big 4 firm audits a company, and 0 if otherwise.	+	H11
Control Variables			
FS	Firm Size measured by natural log of total assets.	+/-	C.V
LAV	Leverage measured by the ratio of total debts to total assets.	+/-	C.V

4.6 Hypotheses Testing

Section of Hypotheses discusses the results of the regression analysis among the independent variables and firm performance of the two models (ROA and Tobin's Q). Four groups of hypotheses are involved: (i) H1 to H4 - board characteristics (i.e., board independence, board size, CEO duality, board meetings); (ii) H5 to H8 - ownership structure (i.e., institutional ownership, managerial ownership, foreign ownership and family ownership); (iii) H9 - presence of the audit committee; (iv) H10 to H11 - audit quality (i.e., Audit fees and Audit firm size); and (v) two control variables (i.e., Leverage and firm size). The results of the regression analysis for ROA and Tobin's Q models are shown in Table 4.10.

Table 4.10

OLS Regression Results: ROA and Tobin's Q Model

	Models of the study					
	ROA (Model 1)			**Tobin's Q (Model 2)**		
Variables	Beta	t	Sig.	Beta	t	Sig.
(Constant)		-3.271	.001***		-2.008	.046**
BSIZ	-.059	-1.081	.281	-.160	-2.576	.011**
BIND	.228	4.489	.000***	.146	2.499	.013**
CEO	.107	2.159	.032**	.080	1.407	.161
BMET	.105	2.149	.033**	.164	2.932	.004***
MOW	.187	2.994	.003***	.158	2.204	.028**
IOW	-.130	-2.242	.026**	-.171	-2.574	.011**
FOW	.204	4.170	.000***	.152	2.704	.007***
FAOW	-.228	-3.493	.001***	.144	1.917	.056*
ACM	.296	6.195	.000***	.125	2.277	.024**
AUF	-.143	-2.100	.037**	.108	1.378	.170
AUFS	.089	1.679	.094*	.160	2.617	.009***
FS	.335	5.056	.000***	.088	1.162	.246
LAV	-.241	-4.804	.000***	.078	1.345	.180
	Summary of the Regression Model					
Dependent Variable:		**ROA**			**Tobin's Q**	
N		264			264	
Adjusted R Square		.482			.315	
R Square		.508			.349	
F		19.834			10.324	
Significant		.000			.000	

*Significant at the 0.1 level ** Significant at the 0.05 level *** Significant at the 0.01 level.

As evidenced in Table 4.10, the regression analysis display that the R Square and the Adjusted R Square for the ROA model are 50.8% and 48.2%, respectively. This shows that the variables explain 50.8% of the variance of ROA. Moreover, the ROA model is significant (F-statistic = 19.834, $p < 0.000$), indicating that the model significantly explains the difference in ROA among Jordanian listed firms. For Tobin's Q model, Table 4.10 also shows the R Square for the Tobin's Q model is 0.349, which indicates that the model is able to interpret 34.9% of the variability of firm performance measured by Tobin's Q. The Adjusted R Square indicates that 31.5% of the variation in the dependent variable in the model is explained by variations in the independent variables. The model is highly significant (F-statistic = 10.324, $p < 0.00$), suggesting that the Tobin's Q model significantly describes the variations in the performance in Jordanian firms. The results in Table 4.10 support the opinion that the firms' governance mechanisms used in this study are effective in improving the firms' performance. The following section display the results and outcomes of the hypothesis testing and the relationship among the variables for two models (ROA and Tobin's Q).

4.6.1 Board Characteristics and Firm Performance (H1 to H4)

The following is the discussion of the results between each variable of board characteristics and firm performance.

Hypothesis 1 - Board Size

Hypothesis 1 predicts that board size (BSIZ) is negatively related to firm performance. The results of the regression analysis among board size (BSIZ) and return on asset (ROA) model which are reported in Table 4.10 show that board size is not significantly related to return on asset (i.e., $t = -1.081$, $p=0.281$). This finding shows that the level of firm's performance in Jordanian companies is not significantly associated with the number of board members. In other words, the number of board members does not warrant that return on asset will be good. However, Tobin's Q model shows a negative and significant association among the board size and Tobin's Q ($t= -2.576$, $p=0.011$). The results indicate that the small board size increases Tobin's Q of Jordanian firms. This means that companies that have more board directors tend to have weak performance. The negative and significant result between board size and Tobin's Q supports the argument that large-sized board tend to be less effective (Jensen, 1993). Furthermore, several studies (e.g., Kota &Tomar, 2010; Malik & Makhdoom, 2016; Saeed et al., 2013) have presented empirical proof supporting the supposition of agency theory that an adverse relationship exists among a large board and firm performance.

In conclusion, results of the current study indicate that the board directors' attributes are senestive to the proxies of firm performance like different reults for ROA and for Tobins' Q. Hence, H1 is partially supported by Tobin's Q model.

Hypothesis 2 - Board Independence

This study expects a positive association among board independence (BIND) and firm performance. The result of regression analysis shows that the independence of the board is significantly and positively related to ROA (t = 4.489, P=0.000), as evidenced in Table 4.10. This result is as predicted and implies that the monitoring role of the more independent board could have a significant influence on firm performance, through more efficient monitoring and controlling tasks (Iskandar et al., 2011). This result is consistent with Ahmed and Hamdan (2015), and Rutledge et al. (2016) who indicate that the board members who are independent from management have a positive effect on the firm performance. Nevertheless, as reported in Table 4.10, the regression findings of this study using Tobin's Q model show that there is a significant association between board independence and Tobin's Q (t = 2.499, P= 0.013). This implies that the firms which have a higher number of board members who are independent of management have better performance than firms that have a smaller number of independent directors. Thus, H2 is accepted.

Hypothesis 3 - CEO Duality

This hypothesis suggests that there is a negative association among CEO duality and firm performance. Table 4.10 shows that there is a positive and significant association among CEO duality and ROA (t = 2.159, P = .032). The results indicate that the combined of CEO and chairman does improve the firm's performance. However, in the case of Tobin's Q model, this study found a positive relationship among CEO duality and Tobin's Q model but not significant (t=1.407, p= .161). The findings are consistent with prior studies such as Hamid et al. (2014) that found there is no significant association among firm performance and role duality. The results of this study with ROA model reveal that there is a significant variance in the level of performance between the firms that separate the role of the CEO and chairman and the firms that combine both roles. This result supports the previous result of Al-Matari et al. (2012). They found that the performance of a firm increases when the chairman of the board is holding the CEO position. In addition, unexpected result this was because about 84% of the firms in the sample show the separation of the CEO and board chair positions. Hence, H3 is not supported.

Hypothesis 4 - Board Meetings

As for hypothesis (H4), this study found that the direction among board meetings and firm performance is positive and significant in both models (ROA and Tobin's Q) (t = 2.149, 2.932 and P =.033, .004) respectively. This result is supported by the result of Greco (2011) where the study shows that board effectiveness is related to the frequency of board meetings. Arora and Sharma (2012) concluded that effective meetings are essential to ensure successful board performance. According to our result, the hypothesis (H4) is supported.

4.6.2 Ownership Structure and Firm Performance (H5 to H8)

The following is a discussion of the results of the regression analysis of ownership structure as reported in Table 4.10.

Hypothesis 5 - Managerial Ownership

This study expected a positive relationship among managerial ownership and firm performance. As seen from Table 4.10, the direction of the relationship among managerial ownership (MOW) and both models (ROA and Tobin's Q) are positive as predicted and significant (t = 2.994, P = .003) and (t = 2.204, P = .028) This shows that managerial ownership has a positive contribution to the firm performance. This result is consistent with previous researchers who argued that the higher the level of management ownership in the firm, the lower is the level of conflict of interest. In turn, increase the performance of the firm (Din & Javid, 2011). Thus, hypothesis H5 is supported.

Hypothesis 6 - Institutional Ownership

This study assumes a positive association among institutional ownership (IOW) and firm performance. The ROA model shows a significant negative association among institutional ownership and return on asset (t = -2.242, p= 0.026). This means that a high percentage of institutional ownership would result in a low-level of return on asset. As seen from Table 4.10, the institutional ownership (IOW) has a negative direction and it is significant with (Tobin's Q) model at 5% (t = -2.574, P = .011). This finding indicates that Jordanian listed firms with a higher percentage of institutional ownership tend to weak firm performance. In contrast to the perspective of the agency theory, which states that for firms with a higher proportion of institutional investors, there is a greater monitoring role of these investors, therefore improving their chance for better financial performance (Alkhawaldeh, 2012). Hence, the findings show that there is an inverse relationship between firm perfromacne and institutional ownership which shows that blockholders are not strong enough to perfrom their monitoring duties. The similar results aso reported by Al-Najjar (2015). According to the abovementioned result, hypothesis H6 is not supported.

Hypothesis 7 - Foreign Ownership

The current hypothesis suggests that there is a positive association among foreign ownership (FOW) and firm performance. The regression result among foreign ownership (FOW) and firm performance is shown in Table 4.10 for models (ROA and Tobin's Q). The results are similar to expectations and indicate that the foreign ownership variable is significant to measures of the firm performance (ROA and Tobin's Q). The findings support the hypothesis that states that firms with a higher percentage of foreign ownership are positively related with the firm performance. One of the possible explanations for the significant outcome could be that the proportion of foreign investment in Jordanian listed companies is large compared to other countries according to the findings of descriptive analysis given above. This finding is consistent with Pervan et al. (2012), that foreign ownership is statistically significant to firm performance. Thus, H7 is supported.

Hypothesis 8 – Family Ownership

Regarding this hypothesis (H8), family ownership has a positive relationship with firm performance. The result of (ROA) model shows that this relationship is significant but, and in a negative direction ($t = -3.493$, $P = .001$). This refers to the significant relationship between family ownership and firm performance. This result is consistent with Bambang and Hermawan (2012) who found that family ownership has a negative relationship with firm performance. In addition, Fattoum-Guedri et al. (2017), Haron et al. (2017), and Shen et al (2018) argued that family firms are more risk averse and the tendency to mergers or other opportunities for expansion owing to their concern for the family bequest.

According to the results in Table 4.10, the family ownership (FAOW) in (Tobin's Q) model has a positive direction as predicted, and the relationship is significant (t= 1.917, P=.056). The evidence shows that family ownership has a positive contribution to firm performance. The findings of Tobin's Q model are supported by the agency theory which posits that family ownership is particularly effective in minimizing agency issues when the shares are entirely controlled by agents who are in a specific relationship with other decision agents. This leads to the control of agency problems without separating the management and control decisions (Fama& Jensen, 1983). Therefore, hypothesis (H8) is partially supported.

4.6.3 Presence of the Audit Committee and Firm Performance (H9)

Hypothesis 9 - Audit Committee

Based on agency theory, Hypothesis 9 predicts that the existence of an audit committee (ACM) in a firm is positively associated with firm performance. The result of the regression analysis among the presence of the audit committee and ROA model is shown in Table 4.10. It reveals that the association among the presence of audit committee and return on asset is positive and significant at 1% level ($t = 6.195$, $p = 0.000$). Similarly, using the Tobin's Q model, Table 4.10 shows a significant and positive relationship between the presence of the audit committee and Tobin's Q at 5% level (t = 2.277, p =0.024). This implies that the existence of the audit committee in Jordanian firms is likely to enhance firm performance. In addition, the results of this study provide evidence that the presence of the audit committee which could resolve any differences between management and external auditors, helps to ensure quality audits and contributes to improve the performance of the firm by external auditors and the firm's management. This finding supports the agency theory which indicates that the existence of an audit committee enhances firm performance. The findings of the present study are similar to previous studies (e.g., Al-Matari et al., 2012; Hamdan &Mushtaha, 2011; Yasser et al., 2011) that found a significant relationship between the presence of an audit committee and firm performance. Therefore, H9 is supported by both models (ROA and Tobin's Q).

4.6.4 Audit Quality and Firm Performance (H10 to H11)

Two hypotheses are formulated relating to the relationship between audit quality and firm performance. Table 4.10 presents the results of a regression analysis between audit quality and firm performance using ROA and Tobin's Q models as measurements of the firm performance.

Hypothesis 10 - Audit Fees

In relation to the effect of audit fees (AUF) on firm performance, the results show a significant negative relationship among the audit fees and return on asset in Jordanian firms (t = -2.100, P = 0.037). This finding in the line with Moutinho et al. (2012), they found a negative relationship among audit fees and firm performance. The results not support H10 (audit fees) and suggest that audit fees have a pronounced reverse effect on ROA. In addition, audit fee becomes high when it is perceived that client firm much more risker than other firms in the market, hence high audit efforts are required which increases the audit fee, thus it can possible to say that higher fees for auditors are related to weak firm performance (Sayyar, 2015). In a contrary vein, for the second model (Tobin's Q), as evidenced from Table 4.10, the direction of the relationship between audit fees and Tobin's Q model is positive and not significant ($t = 1.378$, $p = 0.170$). This result is consistent with Santos et al. (2015) evidence from the S&P 500. Santos et al. (2015) found that there is no relationship among audit fees and Tobin's Q. Thus, H10 is not supported.

Hypothesis 11 - Audit Firm Size

Consistent with this study's expectation, audit firm size (AUFS) is significant with firm performance under the ROA model. Table 4.10 shows the audit firm size affect the return on asset at 10% level ($t=1.679$, $p=0.094$). This means that the provision of audit services by the big 4 to Jordanian firms has an effect in improving firm performance. However, Tobin's Q model shows that there is a significant positive association among audit firm size and Tobin's Q at 1% level ($t= 2.617$, $p= 0.009$). The result is in line with the suggestion by Hamid et al. (2014) who claim that that there is a significant positive relationship among audit firm size and firm performance, implying that audit firm size is one of the important factors for improving firm performance. Therefore, H11 is supported.

4.7 Summary of Regression Analysis

The following tables summarize the results of the regression analysis for both models (ROA and Tobin's Q).

Table 4.11

Summary of Regression Analysis of the ROA Model

Board Characteristics	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Size	-	-	-.002	.002	-1.081	.281	
Independence	+	+	.139	.031	4.489	.000	***
CEO Duality	-	+	.022	.010	2.159	.032	**
Meetings	+	+	.003	.001	2.149	.033	**
Ownership Structure	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Managerial	+	+	.163	.054	2.994	.003	***
Institutional	+	-	-.030	.014	-2.242	.026	**
Foreign	+	+	.066	.016	4.170	.000	***
Family	+	-	-.099	.028	-3.493	.001	***
Audit Committee	+	+	.061	.010	6.195	.000	***
Audit Quality	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Audit Fees	+	-	-.039	.018	-2.100	.037	**
Audit Firm Size	+	+	.014	.008	1.679	.094	*
Control Variable	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Firm Size	+/-	+	.043	.008	5.056	.000	***
Leverage	+/-	-	-.088	.018	-4.804	.000	***
R^2 =0.508	Adjusted R^2 =0.482		F Ratio = 19.834		Sig F =0.000		N= 264

*Significant at the 0.1 level ** Significant at the 0.05 level *** Significant at the 0.01 level.

Table 4.12

Summary of Regression Analysis of the Tobin's Q Model

Board Characteristics	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Size	-	-	-.051	.020	-2.576	.011	**
Independence	+	+	.880	.352	2.499	.013	**
CEO Duality	-	+	.162	.115	1.407	.161	
Meetings	+	+	.047	.016	2.932	.004	***
Ownership Structure	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Managerial	+	+	1.362	.618	2.204	.028	**
Institutional	+	-	-.398	.154	-2.574	.011	**
Foreign	+	+	.484	.179	2.704	.007	***
Family	+	+	.617	.322	1.917	.056	*
Audit Committee	+	+	.257	.113	2.277	.024	**
Audit Quality	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Audit Fees	+	+	.289	.209	1.378	.170	
Audit Firm Size	+	+	.247	.094	2.617	.009	***
Control Variable	Predicted Sign	Actual Sign	Coefficient	Standard Error	T value	Significant	
Firm Size	+/-	+	.111	.096	1.162	.246	
Leverage	+/-	+	.280	.208	1.345	.180	
R^2 =0.349	Adjusted R^2 =0.315		F Ratio = 10.324		Sig F =0.000		N= 264

*Significant at the 0.1 level ** Significant at the 0.05 level *** Significant at the 0.01 level.

Table 4.13
Summary of the Hypotheses Testing Results

Hypothesis	Hypothesis statement	Models of Study		Findings
		ROA	Tobin's Q	
H1	There is a negative relationship between board size and firm performance.	Reject	Accept	Partially Supported
H2	There is a positive relationship between board independence and firm performance.	Accept	Accept	Supported
H3	There is a negative relationship between CEO duality and firm performance.	Reject	Reject	Not Supported
H4	There is a positive relationship between board meetings and firm performance.	Accept	Accept	Supported
H5	There is a positive relationship between managerial ownership and firm performance.	Accept	Accept	Supported
H6	There is a positive relationship between institutional ownership and firm performance.	Reject	Reject	Not Supported
H7	There is a positive relationship between foreign ownership and firm performance.	Accept	Accept	Supported
H8	There is a positive relationship between family ownership and firm performance.	Reject	Accept	Partially Supported
H9	There is a positive relationship between the presence of an audit committee and firm performance.	Accept	Accept	Supported
H10	There is a positive relationship between audit fees and firm performance.	Reject	Reject	Not Supported
H11	There is a positive relationship between audit firm size and firm performance.	Accept	Accept	Supported

4.8 The Moderating Effect of Board Ownership

This study used hierarchical regression analysis to test the moderating effect of board ownership on the association between board directors' characteristics and firm performance. The results obtained from the hierarchical regression answers the fifth research question which is, "Does board ownership moderate the relationship between corporate governance and the firm performance of Jordanian listed firms?". Board ownership is measured as the proportion of shares owned by directors over the total number of shares outstanding as Amer recommended (2016). Board ownership may influence board of director's characteristics (i.e., board size, board independence, CEO duality and board meetings) in enhancing firm performance. The following models were used to examine the moderating effect of board ownership (BOW) on the relationship among board of director's characteristics (i.e. board independence,board size, CEO duality, board meetings) and firm performance for both models (ROA and Tobin's Q).

Model 3 - Return on Asset (ROA)

ROA

$$= \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \beta_{14} BOW_{it} * BSIZ_{it} + \beta_{15} BOW_{it} * BIND_{it} + \beta_{14} BOW_{it} * CEO_{it} + \beta_{14} BOW_{it} * BMET_{it} + \varepsilon_{it}.$$

Model 4 - Tobin's Q

Tobin's Q

$$= \beta_0 + \beta_1 BSIZ_{it} + \beta_2 BIND_{it} + \beta_3 CEO_{it} + \beta_4 BMET_{it} + \beta_5 MOW_{it} + \beta_6 IOW_{it} + \beta_7 FOW_{it} + \beta_8 FAOW_{it} + \beta_9 ACM_{it} + \beta_{10} AUF_{it} + \beta_{11} AUFS_{it} + \beta_{12} FS_{it} + \beta_{13} LAV_{it} + \beta_{14} BOW_{it} * BSIZ_{it} + \beta_{15} BOW_{it} * BIND_{it} + \beta_{14} BOW_{it} * CEO_{it} + \beta_{14} BOW_{it} * BMET_{it} + \varepsilon_{it}.$$

Hierarchical regression analysis, also referred to as moderated regression analysis, was carried out to examine the moderating impact of board ownership on the association among board of directors' characteristics (i.e., board independence, board size, CEO duality, board meetings) and firm performance. This analysis is an extensively utilized method to determine the moderating effects of variables (Kim, Al-Shammari, Kim & Lee, 2008; Auh&Menguc, 2005). Moreover, hierarchical regression is suggested by Baron and Kenny (1986) as an appropriate technique used to identify the moderating effect of a quantitative variable on the association among other quantitative variables. It is described as a simple and straightforward procedure that tests the hypothesized moderating effects and is the most popular procedure used for such a test (Aguinis& Gottfredson, 2010).

The moderating effects are detected through the calculation of interaction terms (Aiken & West, 1991). Interaction terms result from the independent and moderator variables. They are generally significantly related to component terms and accordingly, caution should be taken to avoid multicollinearity. As such, the predictor and moderator variables are often standardized (Aguinis& Gottfredson, 2010; Frazier et al., 2004). This process of standardization (z-scoring) makes it convenient to meaningfully interpret the predictor and moderator effects (Aguinis& Gottfredson, 2010; Frazier et al., 2004). Following the creation of interaction terms through the multiplication of z-score of the predictor and moderator variables, everything should be in position to carry out a hierarchical multiple regression equation via SPSS to examine moderator effects. For this, variables are integrated into the regression equation via distinct steps. Such steps are used according to the recommendation of Baron and Kenny (1986) and Frazier et al. (2004). First, the control variable is entered and then the unmoderated equation is evaluated after which the moderated relationship is entered.

The results of the hierarchical regression analysis for the ROA model of this study are shown in Table 4.14. Step 1 shows the results on the effect of the control variables on ROA model and Step 2 shows the results on the main effect of independent variables, while Step 3 shows the findings on the moderating relationship. The final Step (4) shows the results of the interaction between board of director's characteristics and board ownership.

Table 4.14
Hierarchical Moderated Regression Analysis Results. DV: Return on Assets (ROA)

Variables	Step 1 (C.V) (t-value)	Step 1 Significant	Step 2 (I.V) (t-value)	Step 2 Significant	Step 3 (Moderate) (t-value)	Step 3 Significant	Step 4 (BOW*I.V) (t-value)	Step 4 Significant
Control variables								
FS	6.233	.000***	5.056	.000***	5.192	.000***	5.460	.000***
LAV	-4.943	.000***	-4.804	.000***	-4.987	.000***	-5.027	.000***
Main effect								
BSIZ			-1.081	.281	-1.424	.156	-1.348	.179
BIND			4.489	.000***	4.309	.000***	5.044	.000***
CEO			2.159	.032**	2.118	.035**	1.824	.069*
BMET			2.149	.033**	2.144	.033**	2.437	.016**
MOW			2.994	.003***	2.802	.005***	3.196	.002***
IOW			-2.242	.026**	-2.688	.008***	-3.093	.002***
FOW			4.170	.000***	3.979	.000***	3.804	.000***
FAOW			-3.493	.001***	-3.825	.000***	-4.276	.000***
ACM			6.195	.000***	6.281	.000***	6.178	.000***
AUF			-2.100	.037**	-1.969	.050**	-2.063	.040**
AUFS			1.679	.094*	1.583	.115	1.593	.113
Moderating effect								
BOW					1.573	.117	1.685	.093*
Interaction effect								
BOW*BSIZ							-2.491	.013**
BOW*BIND							-2.718	.007***
BOW*CEO							-1.569	.118
BOW*BMET							-2.042	.042**
Summary of the Hierarchical Regression Model								
R^2	.160		.508		.513		.548	
Adjusted R^2	.153		.482		.485		.515	
R^2 Change	.160		.348		.005		.036	
Significant F change	.000***		.000***		.117		.001***	
Durbin-Watson	1.932							

*Significant at 0.1. ** Significant at 0.05. *** Significant at 0.01.

As shown in Step 1 of Table 4.14, when theleverage and firm size are entered as control variables into the regression model in the first step, the adjusted R^2 is found to be 0.160, indicating that sixteen percent of the level of firm performance can be explicated and described by the leverage and firm size.

Results in Step 2 show that without the effect of board ownership, corporate governance mechanisms lead to higher return on assets. The adjusted R^2 has increased to 0.482. This R^2 change (0.348) is significant because F change is significant (0.000).

In Step 3, by adding board ownership as a moderator variable, there is no significant F change. This implies that there is no major influence from moderator variable (i.e., board ownership) on the dependent variable.

Results in Step 4 show that when the interaction is entered in the final step, R^2 has increased from 0.513 to 0.548. The R^2 change (0.036) is significant. This indicates that the board ownership moderates the relationship among the board director's characteristics and firm performance. In other words, when board director's characteristics are interacted with board ownership, return on assets becamelower, as shown by the negative coefficient on (board ownership*board size, board ownership*board independence, and board ownership*board meetings). The finding suggests that board ownership influenced the firms' governance to have a lower return on asset.

Prior studies claim that controlling shareholders may change the behavior of boards of directors. Similarly, Makhlouf et al. (2017) stress the significance of board ownership in Jordanian listed firms. They reveal that the average board ownership is 46% and this significant percentage indicates the significant power of the board of directors in managing the firms.

This domination (i.e., board ownership) is a significant barrier to the effective implementation of corporate governance measures and constrains the roles and responsibilities of those in charge of making corporate decisions. Khan et al. (2012) stated that high elevl of managerial ownership reduce th firm performance, the main reason behind this is that managers with large proportion of ownership becomes powerfull to guarantee themselves with more benefits. Such myopic behaviour of the managers leads to the poor perfromacne. Furthermore, Abdullatif and Al-Khadash

(2010) assert that the structures of corporate governance in Jordanian companies are not working effectively due to the high ownership concentration. The results of the moderating regression indicate that the relationships between board of directors' characteristics and firm performance using ROA model are affected by the board ownership.

Table 4.14 shows the results of the moderating effect of board ownership for the ROA model. The interaction influence between board ownership (BOW) and each of the board characteristics (i.e., BOW*BSIZ, BOW*BIND, BOW*CEO, BOW*BMET) indicate the effect of board ownership on the association between the board attributes and firm performance. The result implies that firms with a high level of board ownership and board of director's characteristics led to reducing firm performance. These results support the argument that higher level of board ownership may affect the performance of the firm by reducing the effectiveness of corporate governance. The above result is consistent with studies of Chen, Wang, and Lin (2014) who contend that firm value is higher when the board of the firm is independent of controlling shareholders.

As reported in Table 4.14, the findings of the moderating effect of board ownership on the relationship among board size and firm performance show that the interaction among board ownership and board size of directors is negative and significant at 0.05 (t= -2.491, p=0.013). The negative coefficients of an interactive among board ownership and board size indicate that board ownership negatively moderates the association among board size and firm performance (ROA). When the number of board of directors is small, the level of return on asset is higher in firms with a low score of board ownership than firms with a high score of board ownership. However, when the number of board of directors is big, the return on asset is lower in firms with a high score of board ownership than firms with a low level of board ownership.

According to the regression results, 4 presented in Table 4.14, the coefficient of an interactive variable between board ownership (BOW) and board independence (BIND) is negative and significant (t= -2.718, p=0.007). The result suggests, in conformance with hypothesis 13, that board ownership moderates the relationship among board independence and firm performance. When the firm has high board ownership, the governance role of outside directors seems to be less effective. The negative relationship among managerial ownerhip and firm perfromacne indicate that directors are more concerned withtheir own whealth rather to maximize the valu of minor shareholders which cause the agency issues.

The result shows that board ownership has a non-significant effect on the relationship among CEO duality and ROA (t=-1.569, p=0.118). The non-significant moderating effect of board ownership on the relationship among CEO and ROA means that board ownership does not affect on CEO that contributes to ROA.

The moderating effect of board ownership (BOW) in Table 4.14 suggests that they negatively moderate the association between board meetings (BMET) with return on asset (ROA) at the 0.05 level of significance (t=-2.042, p=0.042). This finding implies that for firms with high level of borad ownership, the board meetings leads to lower return on asset. The results indicate that when the number of meetings of the board is high, the return on asset is lower in firms with high board ownership than firms with low board ownership.

Table 4.15
Hierarchical Moderated Regression Analysis Results. DV: Tobin's Q

Variables	Step 1 (C.V) (t-value)	Significant	Step 2 (I.V) (t-value)	Significant	Step 3 (Moderate) (t-value)	Significant	Step 4 (BOW*I.V) (t-value)	Significant
Control variables								
FS	2.607	.010***	1.162	.246	1.425	.155	1.617	.107
LAV	-.082	.935	1.345	.180	.970	.333	1.200	.231
Main effect								
BSIZ			-2.576	.011**	-3.200	.002***	-3.740	.000***
BIND			2.499	.013**	2.217	.028**	1.705	.090*
CEO			1.407	.161	1.341	.181	.878	.381
BMET			2.932	.004***	2.951	.003***	3.527	.001***
MOW			2.204	.028**	1.896	.059*	2.525	.012**
IOW			-2.574	.011**	-3.839	.000***	-3.625	.000***
FOW			2.704	.007***	2.407	.017**	1.975	.049**
FAOW			1.917	.056*	.317	.752	-.085	.932
ACM			2.277	.024**	2.441	.015**	2.351	.020**
AUF			1.378	.170	1.624	.106	1.486	.138
AUFS			2.617	.009***	2.474	.014**	2.241	.026**
Moderating effect								
BOW					2.816	.005***	2.631	.009***
Interaction effect								
BOW*BSIZ							.702	.484
BOW*BIND							.627	.531
BOW*CEO							-2.113	.036**
BOW*BMET							-2.918	.004***
Summary of the Hierarchical Regression Model								
R^2	.027		.349		.369		.403	
Adjusted R^2	.020		.315		.334		.359	
R^2 Change	.027		.322		.020		.033	
Significant F change	.027**		.000***		.005***		.010***	
Durbin-Watson	1.868							

*Significant at 0.1. ** Significant at 0.05. *** Significant at 0.01.

The results of hierarchical regression analysis with respect to Tobin's Q are shown in Table 4.15, when the board ownership is entered as a moderating variable in Step 3. The R^2 change is significant (0.020) and the adjusted R^2 has increased to 0.334. In the final step, when the interaction between board ownership and boarddirector's characteristics is entered, R^2 change is still significant at the 0.05 level (.033) and the adjusted R^2 has increased to 35.9%. This indicates that board ownership moderates the relation among board director's characteristics and firm performance using Tobin's Q model.

The regression analysis for examining the moderating effects of board ownership shows that board ownership moderates the association among board director's characteristics and firm performance in the Tobin's Q model. Table 4.15 shows insignificant results for the moderating effect of board ownership among board size and firm performance (Tobin's Q) (t = 0.702, p = 0.484). Similarly, board ownership also does not moderate the relationship among boardindependence and firm performance (Tobin's Q) (t = 0.627, p = 0.531).

According to Table 4.15, It was found that the interaction of board ownership and CEO duality is negatively associated with Tobin's Q. The negative coefficient of BOW*CEO indicates that board ownership influences CEO duality to reduce firm performance. This means that as the percentage of board ownership increases in the firms, the CEO duality leads to decreased Tobin's Q. As reported in Table 4.15, the beta coefficient for the interaction among board ownership and CEO duality (BOW*CEO) is negative and significant at the 0.05 level (t= -2.113, p=0.036). This suggests that board ownership negatively moderates the relationship among the CEO duality and Tobin's Q. This implies that the impact of CEO duality on performance is weaker for firms with high board ownership.

In terms of board meeting, the results in Table 4.15 for Tobin's Q model indicate that the findings of the board meeting are not significantly different from the main findings in the previous model (ROA). Table 4.15 shows that the interaction between board ownership and board meeting (BOW*BMET) is negatively related to Tobin's Q model (t=-2.918, p=0.004). These findings are consistent with the initial findings in Table 4.14 that shows that the interaction of board ownership and board meeting is negatively related to return on asset (ROA) model of the firm performance.

In conclusion, these results indicate that firms with effective corporate governance mechanisms are more likely to enhance firm performance, hence, supporting the hypothesis that corporate governance has a positive relationship with firm performance. Consequently, the results support the hypothesis that board ownership moderates the relationship of the board of director's characteristic and firm performance for both models (ROA and Tobin's Q).

4.9 Chapter Summary

This chapter discusses the regression assumptions of the data, namely, normality, outliers, linearity, multicollinearity, Autocorrelation, and heteroskedasticity. It also discusses the descriptive analysis for the variables of the study. The descriptive analysis reveals that a majority of non-financial Jordanian listed firms do not comply with the requirements of corporate governance recommended in the Jordanian Corporate Governance Code. This chapter presents the findings of the regression analysis on the relationship among four essential sets of variables, namely, board of directors, ownership structures, audit committee, and audit quality, and firm performance in the Jordanian firms over the period from 2014 to 2016. This chapter also discusses whether board ownership moderates the relationship among board of director's characteristics and firm performance.

The results indicate that the mechanisms of corporate governance influence the firm performance depending on whether performance is measured using ROA or Tobin's Q. The findings of the ROA model showed that board independence, CEO duality, board meetings, managerial ownership, institutional ownership, family ownership, foreign ownership, audit committee, audit fees, and audit firm size are significantly related to ROA. Furthermore, the findings of the second model Tobin's Q showed that board size, board independence, board meetings, managerial ownership, institutional ownership, foreign ownership, family ownership, audit committee, and audit firm size are significantly associated with Tobin's Q. This chapter also provides empirical evidence regarding the moderating effects of board ownership on the board of director's characteristics and firm performance.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

5.1 Introduction

This chapter of discussion and conclusion summarizes and discusses the main results and conclusions of the study. This chapter offers a comprehensive debate on the main results and gives additional insights into the effect of corporate governance mechanisms on the performance of firm in Jordanian firms. The chapter is systematized as follows. Section 5.2 presents an overview of this study. Section 5.3 discusses briefly the main results of the study. In Section 5.4, the main results of the moderating effect of board ownership are concisely discussed. Section 5.5 offers the implication of the study and section 5.6 discusses the main limitations of this study. Section 5.7 presents a suggestion for future research. Finally, a conclusion of the study is offered in the last section, 5.8.

5.2 Recapitulations of the Study

The key and foremost purpose of the current study is to provide evidence regarding the influence of corporate governance mechanisms on performance of the firms among Amman Stock Exchange of the Jordanian listed firms. The present study addresses the issue and problem that rises due to the conflict of interest among shareholders and management. In addition, the level of performance of firm in the financial reports issued by Jordanian firms is very low. Makhlouf et al. (2017) has reported that the weak performance of Jordanian-listed firms is also attributed to weaknesses in corporate governance practices. Several external and internal tools, commonly called as corporate governance has been recommended in order to control such problems. For instance, board characteristics, ownership structure, audit committee and audit quality are recognized as a solution for such type of conflicts.

Therefore, in order to attain the objectives of this study, five research questions are developed which are as follows: (1) Is there a relationship among the characteristics of the directors of board (board independence, board size, CEO duality and board meetings) and the firm performance of Jordanian listed firms? (2) Is there a relationship among ownership structure (institutional ownership, managerial ownership, family ownership and foreign ownership) and the performance of firms of Jordanian listed firms? (3) Is there a relationship among the presence of audit committee and the performance of firms of Jordanian listed firms? (4) Is there a relationship among audit quality (audit firm size and audit fees) and the performance of firms of Jordanian listed firms? (5) Does board ownership moderate the relationship among the corporate governance and the performance of firms of Jordanian listed firms?

To answer these research questions, a research hypotheses and theoretical framework are developed. For the purpose of validating the framework and hypotheses, Jordanian listed firms annual reports are used to collect the data starting from 2014 until 2016.

In order to test the hypotheses of the current study, multiple regression analysis by using SPSS software version 22 was used to analyse the relationship among corporate governance mechanisms (board characteristics, ownership structure, the presence of audit committee, audit quality) on firm performance among listed firms in Jordan. Furthermore, this study explores the impact of board ownership in moderating the relationship among directors of board characteristics (namely, board independence, board size, CEO duality and board meetings) and firm performance among listed firms in Jordan. Performance of the firm was measured by using ROA and Tobin's Q (Burca&Batrînca, 2014; Jermias&Gani, 2014). The influence of eleven corporate governance variables, four variables related to the board characteristics, namely, Size, Independence, CEO Duality, and Meetings. Four variables related to ownership structure, namely, Managerial, Institutional, Foreign, and Family. One variable related to the audit committee which is the presence of an audit committee of the firm. Two variables related to audit quality, namely, Audit Fees and Audit Firm Size. To test the effect of the moderator variable (i.e., board ownership) on the association among board of director's characteristics (i.e., board independence, board size, CEO duality, and board meetings) and firm performance, a multiple hierarchical regression analysis was conducted.

Furthermore, although board ownership is a distinct factor in developing nations such as Jordan, studies that examined the firm performance (to the knowledge of the researcher) failed to include this topic. As such, the present study examined whether corporate governance (such as board of director's characteristics, ownership structure, presence of audit committee, and audit quality) has the relationship with firm performance (Tobin's Q and ROA). The researcher study also examined the moderating effect of board ownership on the relationship among the performance of firms and directors of board characteristics.

The outcomes of the current study are considered to be valuable for both academics and practitioners, as deliberated in the following sections. Moreover, the limitations suffered by this study, as well as the suggestions for incoming and future studies are explained in more detail.

5.3 Discussion of Hypotheses

5.3.1 Board Characteristics

5.3.1.1 Board Size

According to the Agency theory small boards are more effective and efficient in monitoring management behaviour. The hypothesis of firm performance and board size is partially supported. Result of the ROA model shows the direction of the association among the performance and board size is not significant. This finding and result is not consistent with Makhlouf et al. (2017) studies, who found a significant association among ROA and board size. They concluded that more members on a board would make the ROA decrease. However, this study found that board size is negatively and significantly linked with Tobin's Q model. The negative relationship suggests that the small boards of directors are more effective and efficient with firm performance than a larger size of board, which leads to improving the performance of the firm. Therefore, this finding supports the agency theory that suggests that a small number of board members is effective enough to monitor management (Jensen, 1993; Zaitul, 2010).

Boards in most Jordanian firms are medium-sized. However, the Jordanian Corporate Governance Code (2009) refers that the board size must be between five-to-thirteen. According to the descriptive statistics in Table 4.2, the maximum and minimum of board members were between 13 and 4 respectively. This result shows that there are some violations of the requirements of the Code of Corporate Governance (2009) in terms of the number of board members, but generally, there are an ideal number (eight) of board members in most industrial and services firms in ASE. This result is in the favour and supports that the function of board size is controlling and monitoring the actions of management.

5.3.1.2 Board Independence

Supporting the agency theory, the current study obtained a significant and positive relationship among firm performance and board independence. As a higher ratio of independent directors' lead to higher of Tobin's Q and ROA, this result supports the claim of Fama and Jensen (1983) and Pfeffer and Salancik (2003) that outside directors heavily improved the effectiveness of board and decreased uncertainty. This finding is also consistent with prior studies (e.g., Ahmed & Hamdan, 2015; Barka& Legendre, 2016; Malik & Makhdoom, 2016; Rutledge et al., 2016; Saeed et al., 2013). They found a positive relationship among firm performance and independent directors.

Therefore, board independence plays an important part in monitoring management as argued in the agency theory. It is worth noting that the Jordanian Corporate Governance Code (2009) stated that there are three non-executive members are must be the part of the board of directors, but many industrial and services firms in ASE did not comply with the requirements of this Code, especially those with small size board. As presented in the descriptive statistics section in Chapter Four, the minimum value of board independence was 0.00, which means that some (2%) industrial and services firms in ASE contained no proportion of independent members in their boards.

5.3.1.3 CEO Duality

The finding of this study showed that the relationship among the CEO duality and ROA is significant and positive. This result is a contrast to our expectations. The direction of this relationship is consistent with the prior studies which found a positive relationship among the duality of roles and performance of the firm (Al-Matari et al., 2012). Conversely, agency theory reported that duality will impair the supervisory function of the board. It also allows the CEO to manage in the opportunistic behaviour because of his authority over the board (Barako, Hancock &Izan, 2006).

In contrast to the perspective of the agency theory, the effect of CEO duality on firm performance is insignificant under the Tobin's Q model. This means that the firm performance is not significantly related with CEO duality. Hence, the result of this study does not support and not in the favour of the agency theory, which indicates that CEO duality minimizes the monitoring function of the directors of board with respect to upper level management, and this minimization may adversely impact on the performance of the firm (Levy, 1981). This finding is supported by previous study that found that CEO duality does have insignificant relationship with Tobin's Q (Makhlouf et al., 2017).

The Jordanian Corporate Governance Code (2009) has stated that "It is not allowed for one person to hold the positions of chairman of the board of directors and any executive position in the company at the same time" (p. 7). However, about 16% of Jordanian firms still did not conform with the Jordanian Corporate Governance Code (2009).

5.3.1.4 Frequency of Board Meetings

The Jordanian Corporate Governance Code (2009) mentions that the board should meet frequently to perform its roles and responsibilities, to discuss a range of important issues related to the organization, including the performance of management and the organization. The outcomes of the current study show a significant positive association among board meetings Tobin's Q model and ROA model. The positive and significant relationship shows that firms with more meetings held during the year tend to have a higher performance of the firm. This finding is link with Arora and Sharma (2012) and Vafeas (1999), who support the agency theory, which highlight that the boards which meet regularly and more frequently and are more effectively advice, discipline and monitor management, thus increase the firm's performance.

In addition, the JCGC (2009) has stated that the board of directors should conduct at least six meetings in a fiscal year in Jordan. However, the average number of board meetings in Jordan was eight, and the minimum and the maximum number of meetings were 4 and 18 meetings respectively. This result means that not all (2%) the services and industrial Jordanian listed firms are in compliance with the criteria of the Corporate Governance Code (2009), which states that at the minimum of six meetings of the board should occur yearly.

5.3.2 Ownership Structure

5.3.2.1 Managerial Ownership

According to agency theory, managerial ownership can decrease the manager's incentives who get benefit from their authority and position and also to seize the wealth of shareholders. Managerial ownership is accurate and fully with our expectations and this relationship direction is significant and positive. This refers that there is a significant relationship among firm performance and managerial ownership by using Tobin's Q and ROA. This result is linked with the result of Mohammed (2018) who found that managerial ownership has a positive impact on performance of the firm, which is measured by ROA. Similarly, Warrad et al. (2013) reported that there is a positive relationship among the Tobin’s Q and managerial ownership. According to the agency theory view, managerial ownership are linked the interest of stakeholders with the agents, also decreasing the agency issues and problems and increasing the stakeholders wealth, that leads better performance of firms.

5.3.2.2 Institutional Ownership

According to the result of this study showed that higher level of institutional ownership may decrease the performance of the firm. The relationship among ROA and institutional ownership is significant in inverse direction. Findings of Al-Zaidyeen and AL-Rawash (2015) supported this relationship who summarized that ROA and institutional ownership are negatively link with each other. This shows that firms having higher institutional ownership are linked with lower ROA. Moreover, Tobin’s Q models demonstrates a negative relationship among institutional ownership and Tobin’s Q at a 5% of significant level. The negative relationship among institutional ownership and Tobin’s Q represents that a higher percentage of institutional ownership with decrease in Tobin’s Q. This shows that it is not guarantee that institutional ownership and Tobin’s Q are directly proportional with each other, increase in institutional ownership may be increase in Tobin’s Q, or may be decrease in Tobin’s Q. These results are linked with the results of Charfeddine and Elmarzougui (2011) who found both significant and insignificant relationship among the institutional ownership and performance of firm measured by Tobin’s Q model.

Similarly, Charfeddine and Elmarzougui (2011) argued that institutional ownership does not necessarily increases the firm performance because of their own internal agency conflicts, institutional investors may deliver an insignificant monitoring role. The results and finding can be described by the differences of the organised framework of developing markets, such as Jordan markets and other developed markets. Thus, it shows that such investors have less and weak role in the monitoring of firm performance. This study indorses that policy makers needs to develop a peaceful environment for organized investors in Jorden, so, they can act as a tool of good governance. (Al-Najjar, 2015).

5.3.2.3 Foreign Ownership

The outcome of the present study shows that the relationship among firm performance and foreign ownership by using Tobin's Q and ROA models is significant. The positive impact of foreign ownership on performance of firm shows that foreign investors do play an active and vital role in improving the level of firm performance. This significant relationship among firm performance and foreign ownership is in line with the agency theory. Foreign investors who hold a substantial share of a company reduce agency costs and play a management monitoring role. As a result, the performance of a firm will increase (Jensen, 1986; Jiang & Yamada, 2011). Mohandi and Odeh’s (2010) research also indicated that foreign ownership increases the quality of financial statements in Jordan.

5.3.2.4 Family Ownership

Family ownership has a significant and negative relationship with ROA; that refers to the significant relationship among the firm performance and family ownership. This outcome is consistent with the outcome of Bambang and Hermawan (2012) who found Family ownership has a negative and inverse relationship with the performance of firms. Accordingly, that implies that family firms are likely to involve in the opportunistic behaviour in reporting earnings because it potentially could damage the reputation of family, wealth, and the long-term performance of firm. This result is contrast to our expectations. As mentioned earlier, family business groups are prevalent form of the structure of ownership among Jordanian firms. These families have many listed and unlisted firms that operate in different sectors. These firms seem legally independent. They are related to each other because they are owned by same family. It is predicted that agency theory could not be usable over these groups, as the major shareholders and managers of these companies are owned by the family that harm the entity theory as well as the Jordanian code of corporate governance as confirmed by Nimer et al. (2012).

Thus, it is clear due to lack of regular board meetings, controlling environment and weak protection shield of investors, families which are in majority controlling the resources of firms and also used these capital market for their private and personal benefits. This means that expropriating shareholders majority wealth may present in these capital market and hence performance of such firms are harmfully damage and weak firms performance come in to being.

On the other hand, there is a positive direction among Tobin's Q and family ownership and this relationship is significant as shown from the regression result in

Chapter Four (Table 4.10, page 151). This outcome is consistent with the outcome of Shyu (2011) where family ownership positively affects the performance of the firm. Moreover, Pukthuanthong et al. (2013) they argued that the presence of family ownership may help in solving and reducing the traditional agency engagement among owners and managers by presenting a exclusive leadership style.

5.3.3 Presence of Audit Committee

A theory which explains the audit committee role in internal corporate governance is known as Agency theory that elaborates the reduction of information asymmetry. This leads to decrease the problems of agency (Al-Matari et al., 2012). Advocating the aforementioned theory, the outcome of this study shows a positive relationship among the firm performance models and the existence of an audit committee (Tobin's Q and ROA). Therefore, it advocates the point concerning the enhancement of firm performance for the existence of an audit committee. Similarly, this argument is also supported by existing studies Hamdan and Mushtaha (2011) and Yasser et al (2011). For instance, the study of Hamdan and Mushtaha (2011) evaluating the connection among the possibility of a company that has been giving a clean audit report. So on, the attributes of the audit committee that listed as ASE industrial companies in Jordan.

Based on the outcomes of their study, the authors concluded that a positive effect of audit committee existed on the report of the external auditor, which had a positive effect on the performance of the firms. Yasser et al. (2011) also demonstrate that there is a positive link among the presence of firm performance and audit committee. In addition, the outcomes of the current study support the perspective of agency theory which supposes that the presence of audit committee can improve the performance of the firm.

5.3.4 Audit Quality

5.3.4.1 Audit Fees

Unlike the agency theory, the result of the association among ROA and audit fees is significant in a negative direction. This shows that higher fees of audit services play a critical and important role in reducing the level of ROA.

The result is consistent with Moutinho et al. (2012) evidence on U.S. non-financial firms. Furthermore, study conducted by Moutinho et al. (2012) found that there is a negative relationship among audit fees and ROA. In a poor economic country, the clients are supposed as risk taker and as such attribute needs more audit effort as a result there is more and higher audit fee, after that it can possible to say that higher and more fees for the auditors are linked with the weak performance of the firm. (Sayyar et al., 2015). Contradictory to expectation, the result of this study reveals that audit fees do not determine the performance of services and industries of Jordanian firms under Tobin's Q model. This result is in line with Santos et al. (2015) who reported no evidence has been found in the relationship among audit fees and firm performance under Tobin's Q.

5.3.4.2 Audit Firm Size

In line with expectations, the hypothesis regarding the audit firm size and firm performance is supported. The regression result of this study shows that the relationship among the audit firm size and firm performance using ROA and Tobin's Q models is positively significant. This result is consistent with expectations and is in line with the agency theory which supposes that big audit firms perform better than small firms in issuing the highest quality of financial reports (Abu Haija, 2012). Further, the significant association among firm performance and audit firm size is consistent with Hamid et al. (2014). They stated that audit firm size has a significantly positive relation with firm performance, implying that audit quality is one of the main keys and factors for improving firm performance.

5.4 Moderating Effect of Board Ownership on the Relationship between Board of Directors Characteristics and firm performance

The results of examining the moderating effects of board ownership show that board ownership moderates the relationship among directors of board and firm performance characteristics for both models (ROA and Tobin's Q). The findings show that the interaction of board ownership and board size is negatively related with ROA. The results also indicate that the interaction of board ownership and board size is negatively associated with ROA. In addition, Moreover, the result showed that the interaction of meetings of board and board ownership is negatively related with ROA.

Furthermore, the results of Tobin's Q model indicate that the interaction of CEO duality and board ownership is negatively linked with Tobin's Q. The findings also show that the interaction of board meetings and board ownership is negatively associated with Tobin's Q. These results support the argument that the high level of board ownership affects the directors of board characteristics to reduce firm performance. Furthermore, the result in both models (ROA and Tobin's Q) state that the moderating variable (board ownership) used in this study reduces the effectiveness of the directors of board characteristics, hence reducing the performance of the firms.

In general, despite the fact that all corporate governance variables are not support the developed hypotheses of the current study, the study has succeeded in achieving its objectives by determining the answers to the research questions. Specifically, the present study highlights that agency theory provides a generally good clarification of the association among mechanisms of corporate governance and performance of the firms.

5.5 Implications of the Study

This study provides several important implications for the theory, regulatory authorities and policy makers and academia and researchers.

5.5.1 Implications to Theory

Studies about corporate governance generally stem from the agency perspective, where firms utilize mechanisms of corporate governance to control agency conflict among firms. These mechanisms include board of directors, ownership structure, audit committee and audit quality, that are created to minimize the conflict among management and shareholders within firms. This study's results reinforce the agency theory's strength in explaining the firm performance and corporate governance practices in the context of Jordan. While prior studies merely concentrated on the evaluation of corporate governance system effectiveness in minimizing agency conflict by studying earnings management, going concern evaluation. as well as disclosure, the present study aims to support the agency theory's postulation that firm performance is deemed to be an invaluable instrument to minimize agency conflict. The results are beneficial to researchers as they facilitate empirical evidence concerning agency conflicts in a developing country such as Jordan.

The study is dependable with the agency theory which posits that the existence of corporate governance structure leads to the enhancement of management monitoring and reduction of the occurrence of mismanagement, hence improving and increases the performance of the firms (Afify, 2009). The results show a significant association among the mechanisms of corporate governance (i.e., board characteristics, ownership structure, audit quality and audit committee) and firm performance. The findings of the present study are consistent with the agency theory that mechanisms of corporate governance are effective in reducing agency conflict, thus improving the performance of the firms. In addition, the outcome of this study further indicates that the high percentage of board ownership in Jordanian firms impedes the effectiveness of the directors of board of characteristics which lead to weak the performance of the firms. In addition, the results and findings of this study support the resource dependence theory which assumes that the existence of effective structures of corporate governance within companies that lead to the generation more of resources.

5.5.2 Implications to the Regulatory Authorities and Policy Makers

The Code of Corporate Governance (2009) in Jordan stresses effective governance principles for the accountability of capital markets and for the development. In this regard, the Jordan Securities Commission established a code of corporate governance for listed firms in the Amman Stock Exchange in 2009. The primary objective behind such code is to support the roles and responsibilities and roles of the audit committees and board of directors in such firms. Although the Jordanian government has made attempts to promote the best governance practices in the country's firms, several researchers and regulators are pessimistic of whether the same standard of developed countries' governance can effectively function in a nation characterized by a different legal system, business culture and corporate structure.

Results offered in this study are consistent to expectations and indicates that there is a relationship among mechanisms of corporate governance which are ownership structure, board characteristics, firm performance, audit quality and audit committee. The findings of current study help the regulators in ASE to explain the factors that are affecting ROA and Tobin's Q of the firm in order to take decision and actions enhancing the firm performance. The regulatory authorities and policymakers, especially in Jordan, can use the findings and results of this study as empirical support for the development of their regulations and making future recommendations on corporate governance. Authorities of stock market can also use the findings and result of the study to estimate the present and current requirements of cooperate governance practices and also evaluate the role of corporate governance structure in the improvement of firm's performances. Regulations of new corporate governance and amendments of the present corporate governance code should be relayed on the evidence of empirical studies same as evidence obtainable by this research study.

This study explains a clear view to understanding the influence of board ownership on the performance in Jordanian listed firms. This will help the regulatory bodies in Jordan, such as the Jordan Securities Commission to assess the current listing requirements and evaluate the existing ownership structure in Jordanian listed firms. Furthermore, this study provides an understanding and awareness to the bodies and related parties of whether the current practices of corporate governance in Jordanian listed firms produce the expected results. Furthermore, this study serves as an approach to regulators and policy makers in formulating strategies and policies with respect to the performance of the firms.

5.5.3 Implications to the Academia and Researchers

Several prior studies investigated the association between firms' governance mechanisms and firms' performance on a short-term basis. This study offers the benefit of stimulating researchers' examination of a period that is more extensive in order to generalize the results and offer invaluable interpretations. In addition to this, even though board ownership is a distinct factor in developing nations like Jordan, studies dedicated to examining performance among Jordanian firms have failed to include board ownership in their discussions. The present study's results may shed light on the impact of share owned by board of directors on the firms' performance and the firms' governance mechanisms in the Jordanian firms. This will help academia and researchers in that it provides empirical evidence that is linked to the agency conflict in a developing nation, i.e., Jordan. Jordan's distinct setting offers additional information of the impact of board ownership on the firm performance. Specifically, the present study contributes to corporate governance literature and motivates future studies to further examine the corporate governance practices in other developing nations.

5.6 Limitations of this Study

This study explains a clear image about the corporate governance and also explains how corporate governance structure influences the performance of the firms in the developing countries. All research study has some limitation same as other, this study has also some limitations that should be empirically highlighted in order to find a correct and fair results.

1. Due to the lack of disclosure of Jordanian firms, this study was not able to include all characteristics of the audit committee (e.g., size, meetings and independence). This is difficult because this data is not publicly available. Hence, this study is limited only to examining the presence of audit committees of Jordanian listed firms.
2. This study explores the firm performance among Jordanian listed firms, particularly for industrial and services companies over year of 2014 to 2016. In this study, the financial sector is excluded because it has special regulations issued by the Insurance Commission and regulated Central Bank of Jordan. Future studies may investigate the same period, but particularly for the financial sector, to identify the performance of the firms in the financial sector.

3. This research study employed four important mechanisms of corporate governance which are ownership structure, board characteristics, audit quality and audit committee. It is possible that other external governance factors not involved in this study also contributed to the firm performance.

5.7 Suggestions for Future Research

Extension of this study is possible in the following fields:

1. Future research is required to provide future insight into the role of firms' governance mechanisms and the firms' performance in the Jordanian firms. It would also be very interesting to extend the current study to other countries in the Middle East or other emerging countries to focus on the role of corporate governance on the firm performance and determine whether the corporate governance mechanisms enhance the performance of the firms in these markets.

2. This study is based on board ownership to evaluate the effectiveness of corporate governance structure in Jordanian firms. Therefore, future research should focus on other variables such as ownership concentration as moderators to provide a deeper understanding of the effectiveness of corporate governance and their relationship with the firm performance.

3. Future research may consider more characteristics of audit committee, such as independence, audit committee size, meeting and financial expertise, independence.

4. Further studies can also be undertaken on the non-listed firms in Jordan with a comparison of the findings with the results of the current study in order to highlight the differences between the two groups.

5.8 Conclusion of the Study

This study analyses the effect of corporate governance mechanisms (ownership structure, board characteristics, presence of an audit quality and committee) on the two measures of firm performance that are ROA and Tobin's Q. This study also investigate that the board ownership hinders or delay the effectiveness and efficiency of the directors of the board characteristics in the level of firm performance. In addition, this study contributes to the present literature by providing a complete knowledge and understanding about the role of board ownership and corporate governance as a moderating variable on the performance of the firms. For the best and knowledgeable understanding, this is a first study that investigate the relationship among board of director's characteristics and firm performance moderated by board ownership, board ownership is the moderating variable.

The study is motivated by the gap in the current status of the performance in Jordanian firms, which indicate that the firms' performance in Jordan has experienced negative outcomes. According to (Makhlouf et al., 2017), the weak performance of Jordanian-listed firms is also attributed to weaknesses in corporate governance practices. The current study provides strong evidence that the role of corporate governance structures enhances the level of firms' performance.

Firms listed under the Amman Stock Exchange are the subjects of this study. The results of the regression analysis of ROA model show that a number of independent variables positively affect ROA. Those variables are board independence, board meetings, CEO duality, and managerial ownership, foreign ownership, audit committee, and audit firm size. Furthermore, institutional ownership, board size, family ownership, and audit fees have a negative influence on ROA.

The outcomes of the second model (Tobin's Q) indicate that Tobin's Q is positively related to board size, board meetings, board independence, CEO duality, managerial ownership, family ownership, foreign ownership, audit committee, audit fees, and audit firm size. The results also indicate that Tobin's Q is negatively related to institutional ownership and board size. However, the results of Tobin's Q model show that nine variables are significantly related to Tobin's Q. Those variables are board size, board meetings, board independence, institutional ownership, and managerial ownership, family ownership, foreign ownership, audit committee, and audit firm size.

The overall findings of this study indicate that corporate governance mechanism increase the performance and make performance effective and efficient in the Jordanian firms. Based on the Jordanian listed firms, these findings proposed that firm with efficient and effective mechanism of corporate governance have a good performance. These results support the argument that board independence, managerial ownership, board size, board meetings, family ownership, foreign ownership, audit committee and audit firm size are the significant important determinants of the firm performance.

Obviously, studies concerning the Jordanian firms' performance are lacking and this is one of the motivations for the current study. Specifically, the current delivers an overview of the existing literature concerning the firm performance in Jordan and insights into the applications of instructions, standards and regulations of corporate governance and board ownership in the country. It also highlights the dire need for amendments of regulations governing corporate governance and firm performance.

The overall present study has contributed in the field of studies related to firm performance specifically with regards to the determinants of the firm performance in the perspective of Jordan. The researcher hopes that it is very important area of study and open opportunities for the future researcher to investigate this topic in other countries of the world where there is lacking research regarding this research area. Furthermore, this research study is beneficial and provide opportunities for the future researchers who works regarding to this concerning topic in future. The present study's results are invaluable to the theory, regulatory authorities and policy makers and academia and researchers as it attempts to minimize the gap among the requirements laid down by the Jordanian Securities Commission (JSC) and the Companies Controlling Department's (CCD) requirements on one hand, and firms which have weak performance on the other hand.

REFERENCES

Abdullah, S. A. (2004). Board composition, CEO duality and performance among Malaysian listed companies. *Corporate Governance: The International Journal of Business in Society*, *4*(4), 47-61.

Abdullatif, M. (2016). Auditing fair value estimates in developing countries: The case of Jordan. *Asian Journal of Business and Accounting*, *9*(2), 101-140.

Abdullatif, M., & Al- Khadash, H. A. (2010). Putting audit approaches in context: The case of business risk audits in Jordan. *International Journal of Auditing*, *14*(1), 1-24.

Abdullatif, M., Ghanayem, H., Ahmad-Amin, R., Al-shelleh, S., &Sharaiha, L. (2015). The performance of audit committees in Jordanian public listed companies. *Corporate Ownership and Control*, *13*(1), 762-773.

Abed, S., Al-Attar, A., &Suwaidan, M. (2012). Corporate governance and earnings management: Jordanian evidence. *International Business Research*, *5*(1), 216-225.

Abed, S., Al-Badainah, J., &Serdaneh, J. A. (2012). The level of conservatism in accounting policies and its effect on earnings management. *International Journal of Economics and Finance*, *4*(6), 78-85.

Abu Haija, A. A. (2012). *The application of fair value accounting and corporate governance and their relationship to financial statements manipulation*. (Unpublished doctoral dissertation). University Utara Malaysia, Sintok, Malaysia.

Abubakar, Y. (2015). *Ownership structure and financial performance of quoted building materials firms in Nigeria* (Unpublished doctoral dissertation). Ahmadu Bello University, Zaria Nigeria. Retrieved from http://kubanni.abu.edu.ng:8080/jspui/bitstream/123456789/8561/1/OWNERSHIP%20STRUCTURE%20AND%20FINANCIAL%20PERFORMANCE%20OF%20QUOTED%20BUILDING%20MATERIALS%20FIRMS%20IN%20NIGERIA.pdf

Abu-Serdaneh, J., Zuriekat, M. I., & Al-Sheikh, I. A. S. (2010). Ownership structure and corporate performance in the Jordanian manufacturing companies. Jordan Journal of Business Administration, *6*(3), 426-440.

Abusharbeh, M. T. (2016). The impact of compliance with codes of corporate governance on 1uality of disclosure: Comparative study between Palestine and Jordan. *International Journal of Economics and Finance*, *8*(9), 215-225.

Abu-Tapanjeh, A. M. (2009). Corporate governance from the Islamic perspective: A comparative analysis with OECD principles. 20(5), Critical Perspectives on accounting, 556-567.

Achim, M. V., Borlea, S. N., & Mare, C. (2016). Corporate governance and business performance: Evidence for the Romanian economy. *Journal of Business Economics and Management*, *17*(3), 458-474.

Adekunle, S. A., &Aghedo, E.M. (2014). Corporate governance and financial performance of selected quoted companies in Nigeria. *European Journal of Business and Management*, *6*(9), 53-60.

Adhari, R. (2015). The effect of capital structure and ownership structure on firm performance: A test of the reverse causality hypothesis in ASEAN countries. *Corporate Ownership & Control*, *12*(4-4), 451-461. doi: 10.22495/cocv12i4c4p3

Afify, H. A. E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence from Egypt. *Journal of Applied Accounting Research*, *10*(1), 56-86.

Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, *100*(1), 154-181.

Agrawal, A., &Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of financial and quantitative analysis*, *31*(3), 377-397.

Aguinis, H., and Gottfredson, R. (2010). Best-practice recommendations for estimating interaction effects using moderated multiple regression. *Journal of Organizational Behavior, 31*, 776–786.

Ahmad, N., Nadeem, M., Ahmad, R., & Hamad, N. (2014). Impact of family ownership on firm's financial performance: A comparison study between manufacturing firms and financial firms in Pakistan. *Nigerian Chapter of Arabian Journal of Business and Management Review*, *2*(8), 51-56

Ahmed Haji, A., &Mubaraq, S. (2015). The implications of the revised code of corporate governance on firm performance: A longitudinal examination of

Malaysian listed companies. *Journal of Accounting in Emerging Economies*, *5*(3), 350-380.

Ahmed, E., & Hamdan, A. (2015). The impact of corporate governance on firm performance: Evidence from Bahrain stock exchange. *European Journal of Business and Innovation Research*, *3*(5), 25-48.

Aiken, L. S., and West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.

Ajeela, E., & Hamdan, A. (2011). The relationship between corporate governance and earnings management: Evidence from Jordan. *Arab Journal of Administrative Sciences*, *17*(2), 1-28.

Akbar, S., Poletti-Hughes, J., El-Faitouri, R., & Shah, S. Z. A. (2016). More on the relationship between corporate governance and firm performance in the UK: Evidence from the application of generalized method of moments estimation. *Research in International Business and Finance*, *38*, 417-429.

Akhidime, A. (2015). Board structure, corporate characteristics and audit quality of Nigerian banks. *International Journal of Economics, Commerce and Management*, *3*(6), 832-846.

Akle, Y. H. (2011). The relationship between financial reporting timeliness and attributes of companies listed on the Egyptian stock exchange: An empirical study. *Internal Auditing & Risk Management*, *6*(3), 81-90.

Akpan, E. O., &Amran, N. A. (2014). Board characteristics and company performance: Evidence from Nigeria. *Journal of Finance and Accounting*, *2*(3), 81-89.

Alabdullah, T. T. Y. (2016). Are board size and ownership structure beneficial in emerging markets' firms? Evidence from Jordan. In The Clute Institute, *Proceedings of 2016 IABC and 2016 IEC* (1-7), 5-8 June. Retrieved from https://www.cluteinstitute.com/conference-proceedings/NO16Proceedings.pdf

Alabdullah, T. T. Y. (2018). The Relationship Between Ownership Structure and Firm Financial Performance: Evidence from Jordan. *Benchmarking: An International Journal, 25*(1), 319-333.

Alabdullah, T. T. Y., Yahya, S., &Ramayah, T. (2014). Corporate governance mechanisms and Jordanian companies' financial performance. *Asian Social Science*, *10*(22), 247-262.

Alagha, H. S. (2016). *Corporate governance practices and firm performance of listed companies including Islamic financial institutions in the United Arab Emirates* (Unpublished doctoral dissertation). Victoria University, Melbourne, Australia. Retrieved from http://vuir.vu.edu.au/30150/1/Hani%20S%20 Alagha.pdf

Al-Ajmi, J., &Saudagaran, S. (2011). Perceptions of auditors and financial-statement users regarding auditor independence in Bahrain. *Managerial Auditing Journal*, *26*(2), 130-160.

Al-Akra, M., Eddie, I. A., & Ali, M. J. (2010). The influence of the introduction of accounting disclosure regulation on mandatory disclosure compliance: Evidence from Jordan. *The British Accounting Review*, *42*(3), 170-186.

Alali, F. (2011). Audit fees and discretionary accruals: compensation structure effect. *Managerial Auditing Journal, 26*(2), 90-113.

Alaryan, L. A. (2017). Exploring the role of board characteristics on enhancing financial performance of Jordanian listed companies. *International Journal of Economics and Finance*, *9*(7), 99-105. doi:10.5539/ijef.v9n7p99

Aldaoud, K. A. M. (2015). *The influence of corporate governance and ownership concentration on the timeliness of financial reporting in Jordan* (Unpublished doctoral dissertation). Universiti Utara Malaysia, Sintok, Malaysia. Retrieved from http://etd.uum.edu.my/5375/2/s94072_abstract.pdf

Al-Daoud, K. I., Saidin, S. Z., &Abidin, S. (2016). Board meeting and firm performance: Evidence from the Amman Stock Exchange. *Corporate Board: roles, duties, and composition*, *12*(2), 6-11.**doi:** 10.22495/cbv12i2art1

Aldehayyat, J. S., Alsoboa, S. S., & Al-Kilani, M. H. (2016). Investigating how corporate governance affects performance of firm in small emerging markets: An empirical analysis for Jordanian manufacturing firms. *International Business Research*, *10*(1), 77-95.

Aledwan, B. A., Bani Yaseen, A. A., &Alkubisi, A. (2015). The Role of Audit Quality on the Relationship between Auditor's and Financial Performance Quality of Selected Cement Firm in Jordan. *International Journal of Business and Social Science, 6*(12), 138-146.

Alfaraih, M., Alanezi, F., &Almujamed, H. (2012). The influence of institutional and government ownership on firm performance: evidence from Kuwait. *International Business Research*, *5*(10), 192-200.

Al-Fayoumi, N., Abuzayed, B., & Alexander, D. (2010). Ownership structure and earnings management in emerging markets: The case of Jordan. *International Research Journal of Finance and Economics*, *38*(1), 28-47.

AlGhusin, N. A. (2015). The Impact of Financial Leverage, Growth, and Size on Profitability of Jordanian Industrial Listed Companies. *Research Journal of Finance and Accounting, 6*(16), 86-93.

Al-Haddad, W., Alzurqan, S. T., & Al-Sufy, F. J. (2011). The effect of corporate governance on the performance of Jordanian industrial companies: An empirical study on Amman Stock Exchange. *International Journal of Humanities and Social Science*, *1*(4), 55-69.

Alipour, M., &Amjadi, H. (2011). The effect of ownership structure on corporate performance of listed companies in Tehran stock exchange: An empirical evidence of Iran. *International Journal of Business and Social Science*, *2*(13), 49-55.

Aliyu, Jamil, Zuriana, and Mohamed, (2014). Moderating role of boards' equity ownership in the relationship between corporate governance and the performance of bailed-out banks in Nigeria. *Journal of Business and Management, 18*(8), 133-138.

Aljaaidi, K. S., Bagulaidah, G. S., Ismail, N. A., &Fadzil, F. H. (2015). An empirical investigation of determinants associated with audit report lag in Jordan. *Jordan Journal of Business Administration*, *11*(4), 963-980.

Aljifri, K., &Moustafa, M. (2007). The impact of corporate governance mechanisms on the performance of UAE firms: an empirical analysis. *Journal of Economic and Administrative Sciences*, *23*(2), 71-93

Alkhawaldeh, A. A. (2012). Effects of family and foreign ownership structure on Jordanian credit risk assessments. *International Research Journal of Finance and Economics*, *90*, 92-113.

Almajali, A. Y., Alamro, S. A., & Al-Soub, Y. Z. (2012). Factors affecting the financial performance of Jordanian insurance companies listed at Amman Stock Exchange. *Journal of Management Research*, *4*(2), 266-289.

Al-Manaseer, M. F. A., Al-Hindawi, R. M., Al-Dahiyat, M. A., &Sartawi, I. I. (2012). The impact of corporate governance on the performance of Jordanian banks. *European Journal of Scientific Research*, *67*(3), 349-359.

Al-Matari, E. M., Al-Matari, Y. A., &Saif, S. A. (2017). Ownership structure, audit quality and firm performance moderating and direct-effect models: An empirical study. *Corporate Board: role, duties and composition*, *13*(1), 28-35. **doi:** 10.22495/cbv13i1p3

Al-Matari, E. M., Al-Swidi, A. K., &Fadzil, F. H. B. (2014). The measurements of firm performance's dimensions. *Asian Journal of Finance & Accounting*, *6*(1), 24-49.

Al-Matari, E. M., Al-Swidi, A. K., Fadzil, F. H., & Al-Matari, Y. A. (2012). The impact of board characteristics on firm performance: Evidence from nonfinancial listed companies in Kuwaiti Stock Exchange. *International Journal of Accounting and Financial Reporting*, *2*(2), 310

Al-Matari, Y. A., Al-Swidi, A. K., &Fadzil, F. B. (2012). Audit committee effectiveness and performance of Saudi Arabia listed companies. *Wulfenia Journal*, *19*(8), 169-188.

Al-Najjar, B. (2010). Corporate governance and institutional ownership: Evidence from Jordan. *Corporate Governance: The International Journal of Business in Society*, *10*(2), 176-190.

Al-Najjar, B., & Clark, E. (2017). Corporate governance and cash holdings in MENA: Evidence from internal and external governance practices. *Research in International Business and Finance*, *39*(Part A), 1-12.

Al-Najjar, D. (2015). The effect of institutional ownership on firm performance: Evidence from Jordanian listed firms. *International Journal of Economics and Finance*, *7*(12), 97-105.

Alnasser, S. (2012). What has changed? The development of corporate governance in Malaysia. *The Journal of Risk Finance*, *13*(3), 269-276.

Al-Rassas, A. H., &Kamardin, H. (2015). Internal and external audit attributes, audit committee characteristics, ownership concentration and earnings quality: Evidence from Malaysia. *Mediterranean Journal of Social Sciences*, *6*(3), 458-470.

Al-Sa'eed, M. A. (2013). Compliance with the principles of corporate governance: different perspectives from Jordan. *Accounting and Management Information Systems*, *12*(4), 553-577.

Al-Sa'eed, M. A., & Al-Mahamid, S. M. (2012). Features of an effective audit committee, and its role in strengthening the financial reporting: Evidence from Amman Stock Exchange. *Journal of Public Administration and Governance*, *1*(1), 39-63.

Alsahlawi, A. M., &Ammer, M. A. (2017). Corporate governance, ownership structure and stock market liquidity in Saudi Arabia: A conceptual research framework. *Accounting and Finance Research*, *6*(4), 17-30. doi:10.5430/ afr.v6n4p17

Al-Sraheen, D. A. A. D. (2014). *The relationship between corporate governance mechanisms and company attributes and accounting conservatism of Jordanian listed companies* (Unpublished doctoral dissertation). Universiti Utara Malaysia, Sintok, Malaysia. Retrieved from

Al-Sraheen, D. A., Fadzil, F. H., & Ismail, S. S. B. S. (2014). Does corporate governance matter? Evidence from accounting conservatism practices among Jordanian listed companies. *International Journal of Learning and Development*, *4*(4), 64-80

Al-Zaidyeen, K. A. A., & AL-Rawash, S. Z. (2015). The effect of ownership structure on corporate performance of listed companies in Amman Stock Exchange: An empirical evidence of Jordan. *International Journal of Managerial Studies and Research*, *3*(5), 41-49.

Al-Zoubi, A. F. (2014). The Role of Partnership Public and Private Sectors in the Pursuit of Excellence for Marketing Communications Services Jordanian (Case Study*). International Journal of Marketing Studies, 6*(1), 127-139.

Alzoubi, E. S. S. (2016). Ownership structure and earnings management: evidence from Jordan. *International Journal of Accounting & Information Management, 24*(2), 135-161

Ameer, R., Ramli, F., & Zakaria, H. (2010). A new perspective on board composition and firm performance in an emerging market. *Corporate Governance: The international journal of business in society*, *10*(5), 647-661.

Amer, M. (2016). *Measuring the effect of the board of directors and audit committee characteristics on firm financial performance in Egypt* (Unpublished doctoral dissertation). Cardiff Metropolitan University, Cardiff, Wales. Retrieved from https://repository.cardiffmet.ac.uk/bitstream/handle/10369/8132/Mrwan%20Amer%20Final%20PhD%20signed.pdf?sequence=1&isAllowed=y

Amer, M., Ragab, A. A., &Ragheb, M. A. (2014). Board characteristics and firm performance: Evidence from Egypt. In *Proceedings of the6th Annual American Business Research Conference* (pp. 1-25).New York, New York, the United States, 9-10 June. Retrieved from https://wbiworldconpro.com/uploads/new-york-conference-2014/accounting/1401682593_114-Aiman.pdf

Amman Stock Exchange (ASE), 2009. Retrieved from https://www.ase.com.jo/

Amman Stock Exchange (ASE), 2013. Retrieved from https://www.ase.com.jo/

Amman Stock Exchange (ASE), 2017. Retrieved from https://www.ase.com.jo/

Amman Stock Exchange (ASE), 2018. Retrieved from https://www.exchange.jo/en/Media-Center/Library-Publications/Privatization-Jordan

Ammann, M., Oesch, D., & Schmid, M. M. (2011). Corporate governance and firm value: International evidence. *Journal of Empirical Finance*, *18*(1), 36-55.

Amran, N. A., & Ahmad, A. C. (2013). Effects of ownership structure on Malaysian companies performance. *Asian Journal of Accounting and Governance*, *4*, 51-60.

Ansah, A. Y. (2015). *Corporate Governance and Performance of Mutual Funds in Ghana* (Unpublished doctoral dissertation). University of Ghana, Legon, Ghana. Retrieved from http://ugspace.ug.edu.gh/bitstream/handle/123456789/8900/ Corporate%20Governance%20and%20Performance%20of%20Mutual%20Funds%20in%20Ghana%20-%202015.pdf?sequence=1

Ansong, A. (2015). Board size, intensity of board activity, and financial performance of SMEs: Examining the mediating roles of access to capital and firm reputation. *Journal of Entrepreneurship and Business*, *3*(2), 26-41.

Arora, A., & Sharma, C. (2012). Corporate governance and firm performance: An empirical analysis from Indian manufacturing sector. Corporate Governance: *The International Journal of Business in Society*, *16*(2), 420-436.

Arora, A., & Sharma, C. (2016). Corporate governance and firm performance in developing countries: evidence from India. *Corporate governance, 16*(2), 420-436.

Aryan, L. A. (2015). The relationship between audit committee characteristics, audit firm quality and companies' profitability. *Asian Journal of Finance & Accounting*, *7*(2), 215-226.

Audretsch, D. (2012). Entrepreneurship research. *Management Decision*, *50*(5), 755-764.

Auh, S., &Menguc, B. (2005). Top management team diversity and innovativeness: The moderating role of inter-functional coordination. *Industrial Marketing Management, 34*(3), 249-261.

Ayandele, I. A., & Emmanuel, I. E. (2013). Corporate governance practices and challenges in Africa. *Corporate Governance*, *5*(4), 51-59

Aygun, M., Ic, S., &Sayim, M. (2014). The effects of corporate ownership structure and board size on earnings management: Evidence from Turkey. *International Journal of Business and Management*, *9*(12), 123-132.

Azeez, A. A. (2015). Corporate governance and firm performance: evidence from Sri Lanka. *Journal of Finance, 3*(1), 180-189.

Azim, M. I. (2012). Corporate governance mechanisms and their impact on company performance: A structural equation model analysis. *Australian Journal of Management*, *37*(3), 481-505.

Azzam, I., Fouad, J., & Ghosh, D. K. (2013). Foreign ownership and financial performance: Evidence from Egypt. *International Journal of Business*, *18*(3), 232-254.

Baek, J. S., Kang, J. K., & Park, K. S. (2004). Corporate governance and firm value: Evidence from the Korean financial crisis. *Journal of Financial Economics*, *71*(2), 265-313.

Bambang, M., &Hermawan, M. S. (2012). Founding family ownership and firm performance: Empirical evidence from consumer goods industry in Indonesia. *Journal of Applied Finance and Accounting*, *4*(2), 112-131.

Bandiera, O., Hansen, S., Prat, A., &Sadun, R. (2016). *CEO behavior and firm performance*. National Bureau of Economic Research. Retrieved from https://www.ed.ac.uk/files/atoms/files/ceobehavior_wp.pdf

Barako, D. G., Hancock, P., &Izan, H. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An International Review, 14*(2), 107-125.

Barka, H. B., & Legendre, F. (2016). Effect of the board of directors and the audit committee on firm performance: A panel data analysis. *Journal of Management & Governance*, *21*(3), 737-755.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173-1182.

Barros, C. P., Boubaker, S., &Caepem, A. H. (2013). Corporate governance and voluntary disclosure in France. *Journal of Applied Business Research*, *29*(2), 561-578.

Bawaneh, S. S. (2015). Banks commitment to corporate governance and their performance: A case of Jordanian banks. *International Review of Management and Business Research*, *4*(4), 1020-1043.

Baydoun, N., Maguire, W., Ryan, N., & Willett, R. (2012). Corporate governance in five Arabian Gulf countries. *Managerial Auditing Journal*, *28*(1), 7-22.

Bell, T. B., Doogar, R., & Solomon, I. (2008). Audit labor usage and fees under business risk auditing. *Journal of accounting research*, *46*(4), 729-760.

Ben- Nasr, H., Boubakri, N., & Cosset, J. C. (2012). Earnings quality in privatized firms: International evidence on the role of state and private owners. Available at https://ssrn.com/abstract=2161478

Bermig, A., & Frick, B. (2010). Board size, board composition, and firm performance: Empirical evidence from Germany. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1623103

Beyer, M., Czarnitzki, D., & Kraft, K. (2012). Managerial ownership, entrenchment and innovation. *Economics of Innovation and New Technology*, *21*(7), 679-699.

Bhatt, R. R., & Bhattacharya, S. (2015). Do board characteristics impact firm performance? An agency and resource dependency theory perspective. *Asia-Pacific Journal of Management Research and Innovation*, *11*(4), 274-287.

Bonn, I., Yoshikawa, T., & Phan, P. H. (2004). Effects of board structure on firm performance: A comparison between Japan and Australia. *Asian Business & Management*, *3*(1), 105-125.

Bos, S., Pendleton, A., & Toms, S. (2013). Governance thresholds, managerial ownership and corporate performance: Evidence from the UK. Available at https://www.academia.edu/10277136/Bos_S._Pendleton_A._and_Toms_S._2011_Governance_thresholds_managerial_share_ownership_and_corporate_performance_Evidence_from_the_UK_The_York_Management_School_Working_Paper_University_of_York_UK

Bozec, R., Dia, M., &Bozec, Y. (2010). Governance–performance relationship: a re- examination using technical efficiency measures. *British Journal of Management*, *21*(3), 684-700.

Brick, I. E., &Chidambaran, N. K. (2010). Board meetings, committee structure, and firm value. *Journal of Corporate Finance*, *16*(4), 533-553.

Brickley, J. A., Lease, R. C., & Smith, C. W. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics*, *20*(1-2), 267-291.

Brown, P., Beekes, W., & Verhoeven, P. (2011). Corporate governance, accounting and finance: A review. *Accounting & Finance*, *51*(1), 96-172.

Buallay, A., Hamdan, A., &Zureigat, Q. (2017). Corporate governance and firm performance: Evidence from Saudi Arabia. *Australasian Accounting, Business and Finance Journal*, *11*(1), 78-98.

Bubilek, O. (2017). Importance of internal audit and internal control in an organization — Case study (Unpublished thesis). Arcada University of Applies Sciences, Helsinki, Finland Retrieved from https://www.theseus.fi/bitstream/handle/10024/129916/Bubilek_Olga.pdf?sequence=1

Burca, A., &Batrînca, G. (2014). The Determinants of Financial Performance in the Romanian Insurance Market. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 4*(1), 299–308.

Burton, P. (2000). Antecedents and consequences of corporate governance structures. *Corporate Governance: An International Review, 8*(3), 194-203.

Cabo, P., &Rebelo, J. (2014). *The Efficiency of the Portuguese Agricultural Credit Co-operatives Governance Model*. CIRIEC-Université de Liège.

Carcello, J. V., Hermanson, D. R., & Ye, Z. (2011). Corporate governance research in accounting and auditing: Insights, practice implications, and future research directions. *Auditing: A Journal of Practice & Theory*, *30*(3), 1-31

Cassell, C. A., Drake, M. S., & Dyer, T. A. (2014). Stakeholder Reliance on Audited Reports. Audit Fees, and Auditor Litigation Risk.

Central Bank of Jordan (CJB). (2008). Bankinglaw. Retrieved from http://www.cbj.gov.jo/pages.php?menu_id=123&local_type=0&local_id=0&local_details=0&local_details1=0&localsite_branchname=CBJ

Certo, T.S. (2003). Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review, 28*(3), 432-446.

Chaghadari, M. F. (2011). Corporate governance & firm performance. *International Conference on Sociality & Economic Development, 10*, 484–489.

Chandrasegaram, R., Rahimansa, M. R., Rahman, S. K., Abdullah, S., & Mat, N. N. (2013). Impact of audit committee characteristics on earnings management in

Malaysian public listed companies. *International Journal of Finance and Accounting*, *2*(2), 114-119.

Charbel, S., Elie, B., & Georges, S. (2013). Impact of family involvement in ownership management and direction on financial performance of the Lebanese firms. *International Strategic Management Review*, *1*(1), 30-41.

Charfeddine, L., &Elmarzougui, A. (2010). Institutional ownership and firm performance: Evidence from France. *TheIUP Journal of Behavioral Finance*, *7*(4), 35-46.

Chekili, S. (2012). Impact of some governance mechanisms on earnings management: An empirical validation within the Tunisian market. *Journal of Business Studies Quarterly*, *3*(3), 95-104.

Chen, K., Lin, A., &Siregar, D. (2018). Auditor Reputation, Auditor Independence and the Underpricing of IPOs. *Journal of Applied Business & Economics, 20*(6), 30-39.

Chen, M. H., Hou, C. L., & Lee, S. (2012). The impact of insider managerial ownership on corporate performance of Taiwanese tourist hotels. *International Journal of Hospitality Management*, *31*(2), 338-349.

Chen, Y. S., Hsu, J., Huang, M. T., & Yang, P. S. (2013). Quality, size, and performance of audit firms. *International Journal of Business and Finance Research*, 7(5), 89-105.

Chen, Y., Wang, Y., & Lin, L. (2014). Independent directors' board networks and controlling shareholders' tunnelingbehavior. *China Journal of Accounting Research, 7*(2), 101-118.

Chiang, H., & Lin, M. (2011). Examining board composition & firm performance. *The International Journal of Business & Finance Research, 5*(3), 15–28.

Choi, J. H., Kim, C., Kim, J. B., & Zang, Y. (2010). Audit office size, audit quality, and audit pricing. *Auditing: A Journal of Practice & Theory*, *29*(1), 73-97.

Choi, M., H., Sul, W., & Min, S., K. (2012). Foreign board membership and firm value in Korea. *Management Decision*, *50*(2), 207-233.

Claessens, S., &Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. *Emerging Markets Review*, *15*, 1-33.

Coakes, S., & Steed, L. (2003). SPSS analysis without anguish version 11.0 for windows. (1st Edition). Australia: John Wiley & Sons Inc.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal*, *27*(1), 42-56.

Coles, J. L., Lemmon, M. L., &Meschke, J. F. (2012). Structural models and endogeneity in corporate finance: The link between managerial ownership and corporate performance. *Journal of Financial Economics*, *103*(1), 149-168.

Collier, P. A. (1994). *Factors affecting the voluntary formation of audit committees in major UK listed companies* (Unpublished doctoral dissertation). University of Exeter, Exeter, United Kingdom.

Corten, M., Steijvers, T., &Lybaert, N. (2017). The effect of intrafamily agency conflicts on audit demand in private family firms: The moderating role of the board of directors. *Journal of Family Business Strategy*, *8*(1), 13-28.

Cretu, R. F. (2012). Corporate governance and corporate diversification strategies. *Review of International Comparative Management*, *13*(4), 621-633.

Dalton, D. R., &Kesner, I. F. (1985). Organizational performance as an antecedent of inside/outside chief executive succession: An empirical assessment. *Academy of Management Journal*, *28*(4), 749-762.

Dalton, D. R., Daily, C. M., Johnson, J. L., and Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal, 42*(6), 674-686.

Dalton, D.R., Daily, C.M., Ellstrand, A.E., and Johnson, J.L. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal, 19*(1), 269-290.

Danoshana, S., &Ravivathani, T. (2014). The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. *Merit Research Journal of Accounting, Auditing, Economics and Finance*, *1*(6), 118-121.

Dar, L., Naseem, M. A., Niazi, G. S. K., & Rehman, R. U. (2011). Corporate governance and firm performance: A case study of Pakistan oil and gas companies listed in Karachi Stock Exchange. *Global Journal of Management and Business Research*, *11*(8), 1-10.

Darweesh, M. S. (2015). *Correlations between corporate governance, financial performance, and market value* (Unpublished doctoral dissertation). Walden

University, Minneapolis, Minnesota. Retrieved from http://scholarworks. waldenu.edu/cgi/viewcontent.cgi?article=2617&context=dissertations

Darwish, R. (2012). *Corporate governance and economic development in less developed and developing Countries. An appraisal of country-level and international measures* (Unpublished doctoral dissertation) Institute of Advanced Legal Studies, School of Advanced Study, University of London, London, England. Retrieved from http://sas-space.sas.ac.uk/4734/1/Rania_ Darwish_LLM_ICGFREL_dissertation.pdf

Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, *22*(1), 20-47.

DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, *58*(2), 275-326.

Dekker, J., Lybaert, N., Steijvers, T., &Depaire, B. (2015). The effect of family business professionalization as a multidimensional construct on firm performance. *Journal of Small Business Management*, *53*(2), 516-538.

Deloitte. (2015). *Audit committee resource guide*. Oakland, California: Deloitte Development LLC. Available at https://www2.deloitte.com/us/en/pages/ center-for-board-effectiveness/ articles/audit-committee-resource-guide.html

Demiralp, I., D'Mello, R., Schlingemann, F. P., & Subramaniam, V. (2011). Are there monitoring benefits to institutional ownership? Evidence from seasoned equity offerings. *Journal of Corporate Finance*, *17*(5), 1340-1359.

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, *93*(6), 1155-1177.

Demsetz, H., &Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance*, *7*(3), 209-233.

Denis, D. K., & McConnell, J. J. (2003). International corporate governance. *Journal of Financial and Quantitative Analysis*, *38*(1), 1-36.

Desoky, A. M., & Mousa, G. A. (2012). Do board ownership and characteristics affect firm performance? Evidence from Egypt. *Global Advanced Research Journal of Economics, Accounting and Finance*, *1*(2), 15-32.

Dharmastuti, C., &Wahyudi, S. (2013). The effectivity of internal and external corporate governance mechanisms towards corporate performance. *Research Journal of Finance and Accounting*, *4*(4), 132-139.

Diala-Nettles, I. S., & Strider, S. H. (2014). Ethical business decision making considering stakeholder interest. *International Journal of Marketing and Technology, 4*(1), 215-234.

Din, S. U. D., & Javid, A. Y. (2011). Impact of family ownership concentration on the firm's performance (Evidence from Pakistani capital market). *Journal of Asian Business Strategy*, *2*(3),63-70.

Doğan, M., &Yildiz, F. (2013). The impact of the board of directors' size on the bank's performance: Evidence from Turkey. *European Journal of Business and Management*, *5*(6), 130-140.

Donaldson, L. (1990). The ethereal hand: Organizational economics and management theory. *Academy of Management Review*, *15*(3), 369-381.

Drakos, A. A., &Bekiris, F. V. (2010). Corporate performance, managerial ownership and endogeneity: A simultaneous equations analysis for the Athens stock exchange. *Research in International Business and Finance*, *24*(1), 24-38.

Đức,V. H., & Thuy, P. B. G. (2013). Corporate governance and firm's performance: Empirical evidence from Vietnam. *Corporate Governance*, (218), 62-78.

Edmans, A., &Manso, G. (2010). Governance through trading and intervention: A theory of multiple blockholders. *The Review of Financial Studies*, *24*(7), 2395-2428.

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, *14*(1), 57-74.

Ekanayake, A., Perera, H., &Perera, S. (2010). Contextual relativity of the role of accounting in corporate governance: Evidence from the banking industry in Sri Lanka. In *Conference Proceedings, Sixth Asia Pacific Interdisciplinary Research in Accounting Conference.* SixthAsia Pacific Interdisciplinary Research in Accounting Conference, Sydney, Australia, 11- 13 July. Retrieved from http://apira2010.econ.usyd.edu.au/conference_proceedings/APIRA-2010-090-Ekanayake-The-role-of-accounting-in-corporate-governance.pdf

Elvin, P., & Hamid, A. (2016). Ownership structure, corporate governance and firm performance. *International Journal of Economics and Financial Issues*, *6*(3S), 93-108.

Emmanuel, U., Ayorinde, B., &Babajide, O. (2014). Audit committee multiple directorships and financial reporting quality in Nigeria: An evaluation of the interconnectedness using empirical evidence. *Mediterranean Journal of Social Sciences*, *5*(20), 628-636.

Epps, R. W., &Cereola, S. J. (2008). Do institutional shareholder services (ISS) corporate governance ratings reflect a company's operating performance? *Critical Perspectives on Accounting*, *19*(8), 1135-1148.

European Bank for Reconstruction and Development (EBRD). (Des, 2017). *Corporate Governance in Transition Economies*.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, *88*(2), 288-307.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, *26*(2), 301-325.

Fattoum-Guedri, A., Guedri, Z., & Delmar, F. (2018). Multiple blockholder structures and family firm performance. *Entrepreneurship Theory and Practice, 42*(2), 231-251.

Fauzi, F., & Locke, S. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. *Asian Academy of Management Journal of Accounting and Finance*, *8*(2), 43-67.

Fazlzadeh, A., Hendi, A. T., &Mahboubi, K. (2011). The examination of the effect of ownership structure on firm performance in listed firms of Tehran stock exchange based on the type of the industry. *International Journal of Business and Management*, *6*(3), 249-266.

Ferrer, R. C., &Reynald, S. (2012). The influence of corporate board characteristics on firm performance of publicly listed property companies in the Philippines. *Academy of Accounting & Financial Studies Journal, 16*(4), 123-142.

Finkelstein, S., &D'aveni, R. A. (1994). CEO duality as a double-edged sword: How boards of directors balance entrenchment avoidance and unity of command. *Academy of Management journal*, *37*(5), 1079-1108.

Firdaus, N., &Kusumastuti, R. (2015). How ownership structure influences firm performance in relation to its life cycle. *International Research Journal of Business Studies*, *5*(3). Retrieved from http://www.irjbs.com/index.php/jurnalirjbs/article/viewFile/107/80

Foroghi, D., &Shahshahani, A. M. (2012). Audit firm size and going-concern reporting accuracy. *Interdisciplinary Journal of Contemporary Research in Business*, *3*(9), 1093-1098.

Fraile, I. A., &Fradejas, N. A. (2013). Ownership structure and board composition in a high ownership concentration context. *European Management Journal*, *32*(4), 646-657.

Francis, B. B., Hasan, I., & Wu, Q. (2012). *Do corporate boards affect firm performance? New evidence from the financial crisis*. Bank of Finland, Discussion Papers 11. Retrieved from https://helda.helsinki.fi/bof/bitstream/handle/123456789/7437/170337.pdf?sequence=1

Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, *84*(5), 1521-1552.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counselling psychology research. *Journal of counselling psychology, 51*(1), 115-134.

Fülöp, M. T. (2014). Why do we need effective corporate governance? *International Advances in Economic Research*, *20*(2), 227-229.

Gallucci, C., D'Amato, A., &Santulli, R. (2015). Women on board of directors and firm performance: The moderating role of female Ownership. Empirical evidence from the Italian wine industry. *Journal of Financial Management, Markets and Institutions*, *3*(2), 225-244.

García-Sánchez, I. M. (2010). The effectiveness of corporate governance: Board structure and business technical efficiency in Spain. *Central European Journal of Operations Research*, *18*(3), 311-339.

Gaušaitė, G., &Vedeckis, A. (2016). *The Impact of Managerial Ownership on the Enterprise Performance in the Baltic States* (Bachelor Thesis).

Gavrea, C., &Stegerean, R. (2012). Corporate governance and firm performance: The Romanian case. *Managerial Challenges of the Contemporary Society. Proceedings*, 3, 179-185.

Ghabayen, M. A. (2012). Board characteristics and firm performance: Case of Saudi Arabia. *International Journal of Accounting and Financial Reporting*, *2*(2), 168-200.

Ghahroudi, M. R. (2011). Ownership advantages and firm factors influencing performance of foreign affiliates in Japan. *International Journal of Business and Management*, *6*(11), 119.

Ghasemi, M., & Ab Razak, N. H. (2016). Does the size of board of directors and executives affect firm performance in Malaysian listed firms? *International Journal of Economics and Financial Issues*, *6*(6S), 1-5.

Gill, A., &Obradovich, J. (2012). The impact of corporate governance and financial leverage on the value of American firms. *International Research Journal of Finance and Economics,* 91, 1-14.

Gisbert, A., &Navallas, B. (2013). The association between voluntary disclosure and corporate governance in the presence of severe agency conflicts. *Advances in Accounting*, *29*(2), 286-298.

Górriz, C. G., &Fumás, V. S. (1996). Ownership structure and firm performance: Some empirical evidence from Spain. *Managerial and Decision Economics*, *17*(6), 575-586.

Greco, G. (2011). Determinants of board and audit committee meeting frequency: Evidence from Italian companies. *Managerial Auditing Journal, 26*(3), 208-229.

Greenaway, D., Guariglia, A., & Yu, Z. (2014). The more the better? Foreign ownership and corporate performance in China. *The European Journal of Finance*, *20*(7-9), 681-702.

Gugong, B. K., Arugu, L. O., &Dandago, K. I. (2014). The impact of ownership structure on the financial performance of listed insurance firms in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, *4*(1), 409-416.

Gul, S., Sajid, M., Razzaq, N., & Afzal, F. (2012). Agency cost, corporate governance and ownership structure (the case of Pakistan). *International Journal of Business and Social Science*, *3*(9), 268-276.

Gulzar, M., & Wang, Z. (2011). Corporate governance characteristics and earnings management: Empirical evidence from Chinese listed firms. *International Journal of Accounting and Financial Reporting*, *1*(1), 133-151.

Gurbuz, A. O., &Aybars, A. (2010). The impact of foreign ownership on firm performance, Evidence from an emerging market: Turkey. *American Journal of Economics and Business Administration*, *2*(4), 350-359.

Habbash, M. (2010). *The effectiveness of corporate governance and external audit on constraining earnings management practice in the UK* (Unpublished doctoral dissertation). Durham University, Durham, United Kingdom. Retrieved from http://etheses.dur.ac.uk/448/1/FINAL_WHOLE_PHD_pdf.pdf?DDD2+

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis (7th ed). New Jersey: Pearson3.

Hamdan, A. M. M. (2012). Factors affecting accounting conservatism when preparing corporate financial reports: Evidence from Jordan. *Jordan Journal of Business Administration*, *8*(1), 22-41.

Hamdan, A. M. M., Kukrija, G., Awwad, B. S. A., &Dergham, M. M. (2012). The auditing quality and accounting conservatism. *International Management Review*, *8*(2), 33-50.

Hamdan, A. M., Mushtaha, S. M. S., & Al-Sartawi, M. (2013). The audit committee characteristics and earnings quality: Evidence from Jordan. *Australasian Accounting Business and Finance Journal*, 7(4), 51-80.

Hamdan, A. M., Sarea, A. M., &Reyad, S. M. R. (2013). The impact of audit committee characteristics on the performance: Evidence from Jordan. *International Management Review*, *9*(1), 32-42.

Hamdan, A., &Mushtaha, S. (2011). The Relationship between Audit Committee Characteristics and Type of Auditor's Report: An Empirical Study on the Public Shareholding Industrial Companies Listed at Amman Bourse. *The Arabian Journal of Accounting, 14*(1), 109-163.

Hamid, A. A. (2008). The corporate governance structures of GLCs and NGLCs and firm performance in Malaysia. In Ž. Šević (Ed.),*Proceedings of the7th International Conference Accounting and Finance in Transition* (pp. 551-574). Greenwich, United Kingdom: Greenwich University Press. Retrieved from https://s3.amazonaws.com/academia.edu.documents/36103158/687928.7th_ICAFT_2009.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1512426793&Signature=Zu7VOJlSThphOHii0JidF73WLSI%3D&response-content-disposition=inline%3B%20filename%3DGreenwich_University_Press.pdf#page=561

Hamid, A., Al Farooque, O., &Yarram, S. (2014). *Corporate governance mechanisms and firm performance: Evidence from Jordanian and Australian listed firms*. Paper presented at 13th Eurasia Business and Economic Society (EBES) Conference, Istanbul, Turkey, 5-7 July 2014.

Hamid, M. A., & Abdullah, A. (2012). Influence of corporate governance on audit and non-audit fees: Malaysian evidence. *Journal of Business and Policy Research*, *7*(3), 140-158.

Hamilton, L. C. (2009). Statistics with Stata: Updated for version 10. Canada: Brooks/Cole, Cengage Learning.

Haniffa, R., &Hudaib, M. (2006). Corporate governance structure and performance of Malaysian listed companies. *Journal of Business Finance & Accounting*, *33*(7- 8), 1034-1062.

Hansen, D. R., &Mowen, M. M. (2005). Environmental cost management. *Management Accounting*, *7* (490-526). Mason, Ohio: Thompson South-Western.

Haron, N. H., Zam, Z. M., & Abdullah, N. A. I. N. (2017). Family Ownership, Firm Performance and Capital Structure: Malaysian Evidence. *Advanced Science Letters, 23*(11), 10688-10691.

Harrison, J. S., & Wicks, A. C. (2013). Stakeholder theory, value, and firm performance. *Business Ethics Quarterly*, *23*(1), 97-124.

Hart, O. (1995). Corporate governance: Some theory and implications. *The Economic Journal*, *105*(430), 678-689.

Hassan, M. K., &Halbouni, S. S. (2013). Corporate governance, economic turbulence and financial performance of UAE listed firms. *Studies in Economics and Finance*, *30*(2), 118-138.

Hay, D. (2013). Further evidence from meta- Analysis of audit fee research. *International Journal of Auditing*, *17*(2), 162-176.

Heil, D. (2012). *The influence of the auditor on the earnings quality of their clients* (Unpublished master's thesis). Department of Accounting, Auditing and Control, Erasmus University, Rotterdam, The Netherlands.

Herly, M., &Sisnuhadi. (2011). Corporate governance & firm performance in Indonesia. *International Journal of Governance, 1*(1), 1–20.

Heydari, S., Razeghi, S. F. M., & Sharifi, A. (2015). Investigating the relationship between institutional ownership with financial policies and performance of listed companies in Tehran Stock Exchange. *Singaporean Journal of Business, Economics and Management Studies*, *3*(11), 18-30.

Hidayat, A. A., & Utama, S. (2017). Board characteristics and firm performance: Evidence from Indonesia. *International Research Journal of Business Studies*, *8*(3), 137-154.

Hillman, A. J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management review*, *28*(3), 383-396.

Hillman, A.J., Cannella, A.A. and Paetzold, R.L. (2000) The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change. *Journal of Management Studies, 37*(2), 235-256.

Holderness, C. G., (2003), A survey of blockholders and corporate control. *Federal Reserve Bank of New York Economic Policy Review*, 9(1), 51-64

Hsu, H. (2007). *Boards of directors and audit committees in initial public offerings* (Unpublished doctoral dissertation). Nova Southeastern University, Fort Lauderdale, Florida.

Hsu, W. Y., &Petchsakulwong, P. (2010). The impact of corporate governance on the efficiency performance of the Thai non-life insurance industry. *The Geneva Papers on Risk and Insurance-Issues and Practice*, *35*(1), S28-S49.

Ibrahim, H., & Samad, F. A. (2011). Corporate governance mechanisms and performance of public-listed family-ownership in Malaysia. *International Journal of Economics and Finance*, *3*(1), 105-115.

Ilaboya, O. J., & Okoye, F. A. (2015). Relationship between audit firm size, non-audit services and audit quality. *DBA Africa Management Review*, *5*(1), 1-10.

Ilona, D. (2008). *Board quality and firm performance*: The case of Indonesia's listed companies (Unpublished master's thesis). Universiti Utara Malaysia, Sintok, Malaysia.

International Auditing and Assurance Standards Board. (2011). *Audit Quality: An IAASB perspective*. New York, New York: International Federation of Accountants. Available from https://www.ifac.org/publications-resources/audit-quality-iaasb-perspective

Investopedia. (2018). Retrieved Jul 5, 2018, from https://www.investopedia.com/terms/f/financialperformance.asp

Iraya, C., Mwangi, M., &Muchoki, G. W. (2015). The effect of corporate governance practices on earnings management of companies listed at the Nairobi Securities Exchange. *European Scientific Journal, 11*(1), 169-178.

Isik, O., Unal, E. A., &Unal, Y. (2017). The effect of firm size on profitability: evidence from Turkish manufacturing sector. *Journal of Business Economics and Finance, 6*(4), 301-308.

Iskandar, T. M., Rahmat, M. M., Noor, N. M., Saleh, N. M., & Ali, M. J. (2011). Corporate governance and going concern problems: Evidence from Malaysia. *International Journal of Corporate Governance*, *2*(2), 119-139.

Ismail, N., Haron, N. H., Idayu, N. A., &Zam, Z. M. (2016). CEO's family control and firm performance: Malaysian evidence. *The Social Sciences*, *11*(20), 4907-4911.

Issarawornrawanich, P. (2015). The association between board of directors' characteristics and firm performance: Empirical evidence from emerging market of Thailand. *The Journal of Applied Business and Economics*, *17*(1), 54-65.

Isukul, A. C., &Chizea, J. J. (2017). Corporate governance disclosure in developing countries: A comparative analysis in Nigerian and South African Banks. *SAGE Open*, (July-September) 1-17. Retrieved from http://journals.sagepub.com/doi/ 10.1177/2158244017719112.

Itturalde, D. T., Maseda, D. A., &Arosa, D. B. (2011). Insiders ownership and firm performance. Empirical evidence. *International Research Journal of Finance and Economics*, *67*, 118-129.

Jaafar, A., & El-Shawa, M. (2009). Ownership concentration, board characteristics and performance: Evidence from Jordan. In M. Tsamenyi& S. Uddin (Eds.)

Research inAccounting in Emerging Economies 9 (pp. 73-95). Bingley, England: Emerald Group Publishing Limited.

Jaafar, S. B., James, K., & Wahab, E. A. A. (2012). Remuneration committee and director remuneration in family-owned companies: Evidence from Malaysia. *International Review of Business Research Papers*, *8*(7), 17-38.

Jackling, B., &Johl, S. (2009). Board structure and firm performance: evidence from India's top companies. *Corporate Governance: An International Review, 17*(4), 492-509. DOI: 10.1111/j.1467-8683.2009.00760.

Jamaludin, N. D., Sanusi, Z. M., &Kamaluddin, A. (2015). Board Structure and Earnings Management in Malaysian Government Linked Companies. *Procedia Economics and Finance, 28*, 235-242.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, *76*(2), 323-329.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance, 48*(3), 831-880.

Jensen, M. C., &Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.

Jermias, J., &Gani, L. (2014). The impact of board capital and board characteristics on firm performance. *The British Accounting Review*, *46*(2), 135-153

Jiang, H., & Yamada, T. (2011). The impact of international institutional investors on local equity prices: Reversal of the size premium. *Financial Analysts Journal*, *67*(6), 61-76.

Johl, S. K., Kaur, S., & Cooper, B. J. (2015). Board characteristics and firm performance: Evidence from Malaysian public listed firms. *Journal of Economics, Business and Management*, *3*(2), 239-243.

Jordan Securities Commission (JSC). (2009). *Corporate governance code for shareholding companies listed on the Amman Stock Exchange*. Retrieved from http://sdc.com.jo/english/index.php?option=com_content&task=view&id=372

Jordan Securities Commission (JSC). (2017). Retrieved from https://www.jsc.gov.jo/

Kalsie, A., &Shrivastav, S. M. (2016). Analysis of board size and firm performance: Evidence from NSE companies using panel data approach. *Indian Journal of Corporate Governance*, *9*(2), 148-172.

Kamardin, H. (2009). *The impact of corporate governance and board performance on the performance of public listed companies in Malaysia* (Unpublished doctoral dissertation). UniversitiSains Malaysia, Penang, Malaysia.

Kamardin, H., Latifa, R. A., &Mohdb, K. N. T. (2016), *Ownership structure and firm performance in Malaysia*. Paper presented at the International Conference on Accounting Studies 2016, Langkawi, Malaysia, 15-18 August. Retrieved from http://icas.my/download/icas_2016/304-308-142.pdf

Kamarudin, K. A., Ismail, W. A. W., &Samsuddin, M. E. (2012). The influence of CEO duality on the relationship between audit committee independence and earnings quality. *Procedia-Social and Behavioral Sciences*, *65*, 919-924.

Kanagaretnam, K., Krishnan, G. V., Lobo, G. J., & Mathieu, R. (2011). Audit quality and the market valuation of banks' allowance for loan losses. *Accounting Perspectives*, *10*(3), 161-193.

Kang, S. A., & Kim, Y. S. (2011). Does earnings management amplify the association between corporate governance and firm performance? Evidence from Korea. *International Business & Economics Research Journal* (IBER), *10*(2), 53-66.

Kao, M. F., Hodgkinson, L., & Jaafar, A. (2018). Ownership structure, board of directors and firm performance: evidence from Taiwan. *Corporate Governance: The International Journal of Business in Society, 11*(4), 591-607.

Kapopoulos, P., &Lazaretou, S. (2007). Corporate ownership structure and firm performance: evidence from Greek firms. *Corporate Governance: An International Review*, *15*(2), 144-158.

Kazmier, L. J. (1996). Business Statistics (third edition). McGraw-Hill.

Kearney, C. (2012). Emerging markets research: Trends, issues and future directions. *Emerging Markets Review*, *13*(2), 159-183.

Keasey, K., Thompson, S., & Wright, M. (Eds.). (2005). *Corporate governance: Accountability, enterprise and international comparisons*. Hoboken, New Jersey: John Wiley & Sons.

Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of business ethics*, *114*(2), 207-223.

Khan, F. U., &Nouman, M. (2017.April). Does ownership structure affect Firm's performance? Empirical evidence from Pakistan. *Pakistan Business Review*, 1-23/

Khan, K., Nemati, A. R., & Iftikhar, M. (2011). Impact of corporate governance on firm performance evidence from the Tobacco industry of Pakistan. *International Research Journal of Finance and Economics*, *61*, 7-14

Khan, M. A., Ullah, R., & Shah, N. H. (2012). A relationship between insider's ownership and firm value: A case of Pakistani companies. *International Journal of Asian Social Science,2*(9), 1519-1532.

Khan, M.A., & Javid, A. (2011). Determinants of board effectiveness: Logit model *Interdisciplinary Journal of Contemporary Research in Business*, *3*(2), 1970-1981.

Khatab, H., Masood, M., Zaman, K., Saleem, S., & Saeed, B. (2011). Corporate governance and firm performance: A case study of Karachi stock market. *International Journal of Trade, Economics and Finance*, *2*(1), 39-43.

Kiel, G. C., & Nicholson, G. J. (2003). Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance. *Corporate Governance: An International Review*, *11*(3), 189-205.

Kim, K. H., Al-Shammari, H. A., Kim, B., & Lee, S. H. (2009). CEO duality leadership and corporate diversification behavior. *Journal of Business Research, 62*(11), 1173-1180.

Klai, N., &Omri, A. (2011). Corporate governance and financial reporting quality: The case of Tunisian firms. *International Business Research*, *4*(1), 158-166.

Klapper, L. F., & Love, I. (2002). *Corporate governance, investor protection and performance in emerging markets*. Policy Research Working Paper; No.2818. World Bank, Washington, D.C. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/14319/multi0page.pdf?sequence=1&isAllowed=y

Kline, R. B. (1998). Principles and practice of structural equation modeling. New York: Guilford Press.

Kota, H. B., &Tomar, S. (2010). Corporate governance practices in Indian firms. *Journal of Management & Organization*, *16*(2), 266-279.

Kouki, M., &Guizani, M. (2015). Outside directors and firm performance: The moderating effects of ownership and board leadership structure. *International Business Research*, *8*(6), 104-116.

Krivogorsky, V. (2006). Ownership, board structure, and performance in continental Europe. *The International Journal of Accounting*, *41*(2), 176-197.

Kurtz, D. L., & Boone, L. E. (2012). *Contemporary marketing*. Boston, Massachusetts: Cengage Learning.

Kutum, I. (2015). Board characteristics and firm Performance: Evidence from Palestine. *European Journal of Accounting Auditing and Finance Research, 3*(3), 32-47.

Lama, T. B. (2012). Empirical Evidence on the Link between Compliance with Governance of Best Practice and Firms' Operating Results. *Australasian Accounting, Business and Finance Journal, 6*(5), 63-80.

Larcker, D. F., Richardson, S. A., & Tuna, İ. (2007). Corporate governance, accounting outcomes, and organizational performance. *Accounting Review, 82*(4), 963-1008.

Lawrence, A., Minutti-Meza, M., & Zhang, P. (2011). Can Big 4 versus non-Big 4 differences in audit-quality proxies be attributed to client characteristics? *The Accounting Review*, *86*(1), 259-286.

Leblebici, H., &Fiegenbaum, A. (1986). Managers as agents without principals: An empirical examination of agency and constituency perspectives. *Journal of Management*, *12*(4), 485-498.

Lee, J. (2009). Does size matter in firm performance? Evidence from US public firms. *International Journal of the Economics of Business*, *16*(2), 189-203.

Leuz, C., Lins, K. V., & Warnock, F. E. (2008). Do foreigners invest less in poorly governed firms? *The Review of Financial Studies*, *22*(8), 3245-3285.

Levy, L. (1981). Reforming board reform. *Harvard Business Review*, *59*(1), 166-172.

Li, J. (1994). Ownership structure and board composition: A multi- country test of agency theory predictions. *Managerial and Decision Economics*, *15*(4), 359-368.

Li, X., Sun, S. T., &Yannelis, C. (2017). Managerial ownership and firm performance: Evidence from the 2003 Tax Cut.

Liang, Q., Xu, P., &Jiraporn, P. (2013). Board characteristics and Chinese bank performance. *Journal of Banking & Finance*, *37*(8), 2953-2968.

Lin, C. J. (2011). An examination of board and firm performance: Evidence from Taiwan. *The International Journal of Business and Finance Research*, *5*(4), 17-34.

Liu, S. B., Hsueh, S. J., & Wu, T. P. (2017). Shareholdings of board members and corporate performance: A panel quantile regression analysis. *Global Economic Review*, *46*(3), 1-28.

Loderer, C.F., &Waelchli, U. (2010). *Firm age and performance*. Retrieved from: SSRN: http://ssrn.com.abstract=1342248.

Luo, X., Wang, H., Raithel, S., & Zheng, Q. (2015). Corporate social performance, analyst stock recommendations, and firm future returns. *Strategic Management Journal*, *36*(1), 123-136.

Makhlouf, M. H., Laili, N. H., Basah, M. Y. (2014). Board of directors characteristics and firms performance among Jordanian firms, proposing conceptual framework. *International Journal of Technical Research and Applications, 2*(Special issue 4), 18-23.

Makhlouf, M. H., Laili, N. H., Basah, M. Y., & Ramli, N. A. (2017). Board of Directors' Effectiveness and Firm Performance: Evidence from Jordan. Research Journal of Finance and Accounting, 8(18), 23-34.

Makhlouf, M. H., Laili, N. H., Ramli, N. A., Al-Sufy, F., &Basah, M. Y. (2018). Board of directors, firm performance and the moderating role of family control in Jordan. *Academy of Accounting and Financial Studies Journal, 22*(5), 1-15.

Malik, M. S., & Makhdoom, D. D. (2016). Does corporate governance beget firm performance in Fortune Global 500 companies? Corporate Governance, *16*(4), 747-764.

Manafi, R., Mahmoudian, A., &Zabihi, A. (2015). Study of the relationship between corporate governance and financial performance of the companies listed in Tehran stock exchange market. *Mediterranean Journal of Social Sciences*, *6*(5), 56-61.

Mandacı, P., &Gumus, G. (2010). Ownership concentration, managerial ownership and firm performance: Evidence from Turkey. *South East European Journal of Economics and Business*, *5*(1), 57-66.

Marashdeh, Z. M. S. (2014). *The effect of corporate governance on firm performance in Jordan* (Unpublished master's thesis). University of Central Lancashire, Preston, United Kingdom. Retrieved from http://clok.uclan.ac.uk/11163/ 1/Marasdeh%20Zyad%20Final%20e-Thesis%20%28Master%20Copy%29.pdf

Marimuthu, M. (2017). Ownership structure and firm value: An insider ownership effect. *Global Business and Management Research*, *9*(1s), 658-665.

Martinez, A. L., & da Jesus Moraes, A. (2014). Association between independent auditor fees and firm value: A study of Brazilian Public Companies. *Journal of Modern Accounting and Auditing*, *10*(4), 442-450.

Masry, M. (2015). The impact of ownership duality on firm performance in Egypt. *International Journal*, *3*(1), 54-73.

McCann, B. T., & Vroom, G. (2010). Ownership structure, profit maximization, and competitive behavior. University of Navarra, IESE Business School, Working Paper WP-800. Retrieved from http://www.iese.edu/research/pdfs/DI-0800-E.pdf

McGee, R. (2007). Corporate governance and the timeliness of financial reporting: A case study of the Russian energy sector. *The European Journal of Management and Public Policy, 6*(2), 21-34.

McGregor, D. (1960). The human side of enterprise. *New York*, *21*.

Mehrotra, S. (2016). The nature of corporate board structure and its impact on the performance of USA listed firms. *IUP Journal of Corporate Governance*, *15*(1), 30-45.

Menteş, S. A. (2011). *An analysis on relationship between board size and firm performance for Istanbul Stock Exchange (ISE) national manufacturing index firms*. Namik Kemal University Institute Social Science. Retrieved fromhttp://www.acarindex.com/dosyalar/makale/acarindex-1423912136.pdf

Miettinen, J. (2011). *Audit quality and the relationship between auditee's agency problems and financial information quality*. Department of Accounting and Finance, University of Vaasa, Finland. Retrieved from http://www.ibrarian.net/navon/paper/Audit_quality_and_the_relationship_between_audite.pdf?paperid=8184103.

Mihai, I. O. (2012). Foreign owned companies and financial performance. A case study on companies listed on Bucharest Stock Exchange. *Annals of Dunareade Jos University of Galati Fascicle I Economics and Applied Informatics*, 1, 1-20. Retrieved from https://www.researchgate.net/publication/230898070_Foreign_Owned_Companies_and_Financial_Performance_A_Case_Study_on_Companies_Listed_on_Bucharest_Stock_Exchange

Miller, A., Boehlje, M., & Dobbins, C. (2001*). Key financial performance measures for farm general managers*. Cooperative Extension Service Publication ID-243, 5. West Lafayette, Indiana: Purdue University.

Miloud, T. (2016). Corporate governance, investment and business Growth. *Journal of Applied Business Research (JABR)*, *33*(1), 1-8.

Mohammed, A. M. (2018). The impact of ownership structure on firm performance: Evidence from Jordan. *Academy of Accounting and Financial Studies Journal, 22*(5), 1-9.

Mohandi, A., & Odeh, A. (2010). The effect of ownership structure on the quality of financial statements in Jordan. *Journal of Business Administration*, *19*(2), 1-233.

Monks, R., &Minow, N. (2011). A review of corporate governance in UK banks and other financial industry entities: The role of institutional shareholders. In W. Sun, J. Stewart, & D. Pollard (Eds.), *Corporate governance and the global financial crisis: International perspectives* (134-143). London, England: Cambridge University Press.

Morck, R., Shleifer, A., &Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics*, *20*, 293-315.

Moutinho, V., Cerqueira, A., &Brandao, E. (2012). Audit fees and firm performance. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2180020

Mubarak, A. (2011). Corporate governance practices and reporting in listed companies — Comparative study between Egypt and the UAE. In *Proceedings of International Conference on E-business, Management and Economics, Research for Direction, Dubai, UAE*, *25* (pp. 282-286). Retrieved from http://www.ipedr.com/vol25/55-ICEME2011-N20034.pdf

Muhammad, H., Rehman, A. U., & Waqas, M. (2016). The Effect of Corporate Governance Practices on Firm Performance: Evidence from Pakistan. The East Asian Journal of Business Management, 6(1), 5-12.

Mulili, B. M., & Wong, P. (2011). Corporate governance practices in developing countries: The case for Kenya. *International Journal of Business Administration*, *2*(1), 14-27.

Munisi, G., &Randøy, T. (2013, November-December). Corporate governance and company performance across Sub-Saharan African countries. *Journal of Economics and Business*, *70*, 92-110.

Murigi, G. M., & Kamau, K. J. (2014). The relationship between corporate governance and firm value of manufacturing companies in securities market in Kenya. *International Journal of Social Sciences Management and Entrepreneurship 1*(1), 68-84.

Najid, N., & Abdul Rahman, R. (2011). Government ownership and performance of Malaysian government-linked companies. *International Research Journal of Finance and Economics, 61*(1), 1450-2887.

Nakano, M., & Nguyen, P. (2012). Foreign ownership and firm performance: evidence from Japan's electronics industry. *Applied Financial Economics*, *23*(1), 41-50.

Naser, K. (1998). Comprehensiveness of disclosure of non-financial companies: Listed on the Amman financial market. *International Journal of Commerce and Management*, *8*(1), 88-119.

Nath, S. D., Islam, S., &Saha, A. K. (2015). Corporate board structure and firm performance: the context of pharmaceutical industry in Bangladesh. *International Journal of Economics and Finance*, *7*(7), 106-115.

Nguyen, T., Locke, S., & Reddy, K. (2014). A dynamic estimation of governance structures and financial performance for Singaporean companies. *Economic Modelling*, *40*, 1-11.

Nimer, K. M., Warrad, L., &Khuraisat, O. (2012). The effect of audit committee's effectiveness on dividend payout policy: Evidence from the Jordanian firms. *International Journal of Business and Management*, *7*(7), 172-179.

Noor Afza, A. (2010). *Corporate governance mechanisms, succession planning and firm performance: Evidence from Malaysian family and non-family controlled companies* (Unpublished doctoral dissertation). Universiti Utara Malaysia, Sintok, Malaysia.

Noor, M. A. M. (2011). *The effect of implementation of Malaysian Code of Corporate Governance (MCCG) 2007 on corporate governance attributes and financial performance* (Unpublished doctoral dissertation). Universiti Utara Malaysia, Sintok, Malaysia.

Nuryanah, S., & Islam, S. (2011). Corporate governance and performance evidence: Evidence from an emerging market. *Malaysian Accounting Review*, *10*(1), 17-42.

Nyamongo, E. M., &Temesgen, K. (2013). The effect of governance on performance of commercial banks in Kenya: A panel study. *Corporate Governance: The International Journal of Business in Society*, *13*(3), 236-248.

O'Connell, V., & Cramer, N. (2010). The relationship between firm performance and board characteristics in Ireland. *European Management Journal*, *28*(5), 387-399.

Obigbemi, I. F., Omolehinwa, E. O., Mukoro, D. O., Ben-Caleb, E., &Olusanmi, O. A. (2016). Earnings management and board structure: Evidence from

Nigeria. *SAGE Open*, *6*(3), 1-15. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/2158244016667992

Obiyo, O. C., &Lenee, L. T. (2011). Corporate governance and firm performance in Nigeria. *IJEMR*, *1*(4), 1-12.

Olokoyo, F. O. (2013). Capital structure and corporate performance of Nigerian quoted firms: A panel data approach. *African Development Review, 25*(3), 358-369.

Olsen, S. O. (2007). Repurchase loyalty: The role of involvement and satisfaction. *Psychology & Marketing*, *24*(4), 315-341.

Ombaka, B., Machuki, V. N., &Mahasi, J. (2015). Organizational resources, External environment, innovation and firm performance: A critical review of literature. *DBA Africa Management Review*, *5*(1), 60-74.

Onakoya, A. B., Ofoegbu, D. I., &Fasanya, I. O. (2012). Corporate governance and bank performance: A pooled study of selected banks in Nigeria. *European Scientific Journal, 8*(28), 155-164.

Ongore, V. O. (2011). The relationship between ownership structure and firm performance: An empirical analysis of listed companies in Kenya. *African Journal of Business Management*, *5*(6), 2120-2128.

Opondo, A. N. T. O. N. Y. (2010*). Impact of Corporate Governance practices on operating performance of the Unlisted Financial Institutions in Kenya*. (Master dissertation, University of Nairobi).

Orazalin, N., Makarov, R., &Ospanova, M. (2015). Corporate governance and firm performance in the oil and gas industry of Russia. *Journal of Business Economics and Finance*, *4*(4), 710-722.

Palanissamy, A. (2015). CEO duality – An explorative study. *European Scientific Journal, ESJ*, *11*(10), 33-44.

Pandey, I. M. (2008). *Financial management* (10th ed.) New Delhi, India: Viker Publishing House

Pandya, H. (2011). Corporate governance structures and financial performance of selected Indian banks. *Journal of Management and Public Policy*, *2*(2), 4-21.

Panicker, V. S., Mitra, S., &Upadhyayula, R. S. (2016). *Institutional investment and internationalization: Ownership and board characteristics as moderators* (No. 209). Retrieved from https://iimk.ac.in/websiteadmin/FacultyPublications/Working%20Papers/209abs.pdf?t=58

Park, K., & Jang, S. S. (2010). Insider ownership and firm performance: An examination of restaurant firms. *International Journal of Hospitality Management*, *29*(3), 448-458.

Parker, R. H. (1992). *Macmillan dictionary of accounting* (2nd ed.). London, England: Macmillan.

Parng, Y. J. M., & Fu, C. J. (2011). Detecting firms with going-concern risk based on the industry affiliation, corporate governance characteristics, and financial performance. *African Journal of Business Management*, *5*(22), 9249-9261.

Pathan, S., & Faff, R. (2013). Does board structure in banks really affect their performance? *Journal of Banking & Finance*, *37*(5), 1573-1589.

Pedersen, T., & Thomsen, S. (1997). European patterns of corporate ownership: A twelve-country study. *Journal of International Business Studies*, *28*(4), 759-778.

Pervan, M., Pervan, I., &Todoric, M. (2012). Firm ownership and performance: evidence for Croatian listed firms. *World Academy of Science, Engineering and Technology*, *6*(1), 964-970.

Pfeffer, J. (1972). Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 218-228.

Pfeffer, J., &Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*: Stanford Business Books.

Phung, D. N., & Le, T. P. V. (2013). Foreign ownership, capital structure and firm performance: empirical evidence from Vietnamese listed firms. *IUP Journal of Corporate Governance*, *12*(2), 40-58.

Phung, D. N., & Mishra, A. V. (2016). Corporation diversification and firm performance: evidence from Vietnamese listed firms. *Australian Economic Papers, 55*(4), 386-408.

Pindado, J., &Requejo, I. (2014). Family business performance from a governance perspective: a review of empirical research. *International Journal of Management Reviews*, *17*(3), 279-311.

Ping, Z., & Wing, C. (2011). Corporate governance: A summary review on different theory approaches. *International Research Journal of Finance and Economics*, 68, 7-13.

Pintea, M. O., &Fulop, M. T. (2015). Literature review on corporate governance — Firm performance relationship. *Annals of Faculty of Economics,* 846-854. Retrieved from http://anale.steconomiceuoradea.ro/volume/2015/n1/097.pdf

Psaros, J. 2009, Australian Corporate Governance: A Review and Analysis of Key Issues, Pearson, Frenchs Forest.

Psomas, E., &Kafetzopoulos, D. (2014). Performance measures of ISO 9001 certified and non-certified manufacturing companies. *Benchmarking: An International Journal*, *21*(5), 756-774

Public Oversight Board (POB). (2016). Retrieved from https://www.readyratios.com/reference/accounting/public_oversight_board_pob.html

Pukthuanthong, K., Walker, T. J., Thiengtham, D. N., & Du, H. (2013). Does family ownership create or destroy value: evidence from Canada. *International Journal of Managerial Finance, 9*(1), 13-48.

Ramadan, I. Z. (2012). The impact of institutional investors on firms accounting flexibility: Evidence from Jordan. *International Journal of Economics and Finance*, *4*(6), 141-148.

Rashid, K., & Islam, S. M. (2013). Corporate governance, complementarities and the value of a firm in an emerging market: The effect of market imperfections. *Corporate Governance: The International Journal of Business in Society*, *13*(1), 70-87.

Ratnawati, V., & Hamid, M. A. A. (2017). The moderating effect of managerial ownership and institutional ownership on the relationship between control right and earnings management. *Australian Academy of Accounting and Finance Review*, *1*(1), 69-85.

Rechner, P. L., & Dalton, D. R. (1991). CEO duality and organizational performance: A longitudinal analysis. *Strategic Management Journal*, *12*(2), 155-160.

Reddy, K., Locke, S., & Scrimgeour, F. (2010). The efficacy of principle based corporate governance practices and firm financial performance. *International Journal of Managerial Finance, 6*(3), 190–216.

Rezaee, Z. (2009). *Corporate governance and ethics*. Hoboken, New Jersey: John Wiley & Sons.

Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, *35*(3), 718-804.

Rose, G. (2016). *Visual methodologies: An introduction to researching with visual materials*. Los Angles, California: Sage.

Rutledge, R. W., Karim, K. E., & Lu, S. (2016). The effects of board independence and CEO duality on firm performance: Evidence from the NASDAQ-100 Index with controls for endogeneity. *Journal of Applied Business & Economics*, *18*(2), 49-71.

Saeed, M. B., Murtaza, Z., &Sohail, I. (2013). Corporate governance and firm performance: A study on moderating effects of firm size and leverage on the relationship between corporate governance and firm performance in banking sector of Pakistan. *Jinnah Business Review*, *1*(2), 40-46.

Sahu, T. N., & Manna, A. (2013). Impact of board composition and board meeting on firms' performance: A study of selected Indian companies. *Vilakshan: TheXIMB Journal of Management*, 10(2), 99-112.

Saibaba, M. D., & Ansari, V. A. (2011). Audit committees & corporate governance: a study of select companies listed in the Indian bourses. The IUP Journal of Accounting Research & Audit Practices, 3, 1-10.

Sanda, A. U., Mikailu, A. S., &Garba, T. (2010). Corporate governance mechanisms and firms' financial performance in Nigeria. *Afro-Asian Journal of Finance and Accounting, 2*(1), 22-39.

Santos, C., Cerqueira, A., &Brandão, E. (2015). *Audit Fees, Non-Audit Fees and Corporate Performance. Working Paper*. Retrieved from http://wps.fep.up.pt/wps/wp570.pdf

Sarkar, J., & Sarkar, S. (2012). *Corporate governance in India*. New Delhi, India: SAGE Publications India.

Sartawi, I. I. M., Hindawi, R. M., Bsoul, R., & Ali, A. E. J. (2014). Board composition, firm characteristics, and voluntary disclosure: The case of Jordanian firms listed on the Amman stock exchange. *International Business Research, 7*(6), 67-82.

Sawan, N., &Alsaqqa, I. (2013). Audit firm size and quality: Does audit firm size influence audit quality in the Libyan oil industry? *African Journal of Business Management*, *7*(3), 213-226.

Sayyar, H., Basiruddinb, R., Rasidc, S. A., &Elhabibd, M. A. (2015). *The impact of audit quality on firm performance: Evidence from Malaysia*. International Business School, UniversitiTeknologi Malaysia. Retrieved from http://www.akademiabaru.com/wvsocial/temp/acc4.pdf

Schmidt, J., & Wilkins, M. S. (2012). Bringing darkness to light: The influence of auditor quality and audit committee expertise on the timeliness of financial statement restatement disclosures. *Auditing: A Journal of Practice & Theory*, *32*(1), 221-244.

Segaro, E. L., Larimo, J., & Jones, M. V. (2014). Internationalisation of family small and medium sized enterprises: The role of stewardship orientation, family commitment culture and top management team. *International Business Review*, *23*(2), 381-395.

Sekaran, U. (2003). *Research methods for business: A skill-building approach* (4th ed.). New York, New York: John Wiley & Sons, Inc.

Shah, S. Z. A., Butt, S. A., & Saeed, M. M. (2011). Ownership structure and performance of firms: Empirical evidence from an emerging market. *African Journal of Business Management*, *5*(2), 515-523.

Shan, Y. G., & McIver, R. P. (2011). Corporate governance mechanisms and financial performance in China: Panel data evidence on listed non-financial companies. *Asia Pacific Business Review*, *17*(3), 301-324.

Shanikat, M., &Abbadi, S. S. (2011). Assessment of corporate governance in Jordan: An empirical study. *Australasian Accounting Business & Finance Journal*, *5*(3), 93-106.

Shank, T., Paul Hill, R., &Stang, J. (2013). Do investors benefit from good corporate governance? *Corporate Governance: The International Journal of Business in Society*, *13*(4), 384-396.

Sharma, S., Durand, R. M., & Gur-Arie, O. (1981). Identification and analysis of moderator variables. *Journal of Marketing Research*, *18*(3), 291-300.

Shehata, N. F. (2015). Development of corporate governance codes in the GCC: An overview. *Corporate Governance*, *15*(3), 315-338.

Sheikh, N. A., & Khan, M. I. (2016). Effects of Excess Cash, Board Attributes and Insider Ownership on Firm Value: Evidence from Pakistan. *Australasian Accounting, Business and Finance Journal, 10*(1), 29-39.

Shen, N., Au, K., & Yi, L. (2018). Diversification Strategy, Ownership Structure, and Financial Crisis: Performance of Chinese Private Firms. *Asia- Pacific Journal of Financial Studies, 47*(1), 54-80.

Shleifer, A., &Vishny, R. W. (1986). Large shareholders and corporate control. *Journal of Political Economy*, *94*(3, Part 1), 461-488.

Shleifer, A., &Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, *52*(2), 737-783.

Shuto, A., & Takada, T. (2010). Managerial ownership and accounting conservatism in Japan: A test of management entrenchment effect. *Journal of Business Finance & Accounting*, *37*(7- 8), 815-840.

Shyu, J. (2011). Family ownership and firm performance: evidence from Taiwanese firms. *International Journal of Managerial Finance, 7*(4), 397-411.

Siagian, F., Siregar, S. V., &Rahadian, Y. (2013). Corporate governance, reporting quality, and firm value: Evidence from Indonesia. *Journal of Accounting in Emerging Economies*, *3*(1), 4-20.

Siam, Y. I. S. A., Laili, N. H. B., &Khairi, K. F. B. (2014). Board of directors and earnings management among Jordanian listed companies: Proposing conceptual framework. *International Journal of Technical Research and Applications*, *2*, 1-7.

Siddiqui, S. S. (2015). The association between corporate governance and firm performance — A meta-analysis. *International Journal of Accounting and Information Management*, *23*(3), 218-237.

Simões Vieira, E.F. (2014). The effect on the performance of listed family and non-family firms. *Managerial Finance*, *40*(3), 234-253

Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of Accounting Research*, *18*(1), 161-190.

Škare, M., &Golja, T. (2014). The impact of government CSR supporting policies on economic growth. *Journal of Policy Modeling*, *36*(3), 562-577.

Škare, M., &Hasić, T. (2016). Corporate governance, firm performance, and economic growth–theoretical analysis. *Journal of Business Economics and Management*, *17*(1), 35-51.

Soltani, B. (2014). The anatomy of corporate fraud: A comparative analysis of high profile American and European corporate scandals. *Journal of Business Ethics*, *120*(2), 251-274.

Stanley, J. D. (2011). Is the audit fee disclosure a leading indicator of clients' business risk? *Auditing: A Journal of Practice & Theory*, *30*(3), 157-179.

Tabachnick, B.G. &Fidell, L.S (2007). Using multivariate statistics (5th ed). Boston: Pearson Education.

Talbi, D., Omri, M. A., Guesmi, K., &Ftiti, Z. (2015). The role of board characteristics in mitigating management opportunism: The case of real earnings management. *Journal of Applied Business Research*, *31*(2), 661-674.

Tang, W., Yu, Q., Crits-Christoph, P., & Tu, X. M. (2009). A new analytic framework for moderation analysis — Moving beyond analytic interactions. *Journal of Data Science: JDS*, *7*(3), 313-329.

Tarraf, H. (2011). The role of corporate governance in the events leading up to the global financial crisis: Analysis of aggressive risk-taking. *Global Journal of Business Research*, *5*(4), 93-105.

Teitel, K., &Machuga, S. (2010). The interaction of audit firm quality and the Mexican code of best corporate practices on earnings quality. *Review of Business Research*, *10*(1), 32-40.

The Organization for Economic Co-operation and Development (OECD). (2012, October 12). Retrieved from http://www.oecd.org/countries/jordan/deauvillepartnershipoecdsworkoneconomicgovernanceacrossthemenaregion.htm

The World Bank. (2016). Jordan World Development Indicator: The World Bank.

Ujunwa, A. (2012). Board characteristics and the financial performance of Nigerian quoted firms. *Corporate Governance: The International Journal of Business in Society*, *12*(5), 656-674.

Uwalomwa, O., & Olamide, O. (2012). An empirical examination of the relationship between ownership structure and the performance of firms in Nigeria. *International Business Research*, *5*(1), 1913-9012.

Vafeas, N. (1999). Board meeting frequency and firm performance. *Journal of Financial Economics, 53*(1), 113-142.

Vakilifard, H., Ebadzadeh, K., &Dadbeh, F. (2015). Corporate governance, firm performance and investment opportunities: Evidence from Tehran Stock Exchange. Applied Mathematics in Engineering, Management and Technology, *3*(3),206-212.

Varcholova, T., &Beslerova, S. (2013). Ownership structure and company performance — Research and literature review. *e-Finanse*: *Financial Internet Quarterly*, *9*(2), 24-33

Vintila, G., &Gherghina, S. C. (2014). Insider ownership and the value of the Bucharest Stock Exchange listed companies: Convergence-of-interest or entrenchment effect? *International Journal of Economics and Financial Issues*, *4*(1), 183-195

Vo, D., & Phan, T. (2013). Corporate governance and firm performance: Empirical evidence from Vietnam. *Journal of Economic Development*, *218*, 62-78.

Vo, X.V. (2011) Foreign ownership in Vietnam Stock Market: An empirical analysis. Retrieved from https://mpra.ub.uni-muenchen.de/29863/1/MPRA_paper_ 29863.pdf

Wahba, H., &Elsayed, K. (2014). The effect of life cycle stage of a firm on the relationship between board size and financial performance. *International Journal of Managerial and Financial Accounting*, *6*(4), 273-295.

Wahla, K. R., Shah, S. Z. A., & Hussain, Z. (2012). Impact of ownership structure on firm performance evidence from non-financial listed companies at Karachi Stock Exchange. *International Research Journal of Finance and Economics*, *1*(2), 65-73.

Wang, H., Lu, W., Ye, M., Chau, K. W., & Zhang, X. (2016). The curvilinear relationship between corporate social performance and corporate financial performance: Evidence from the international construction industry. *Journal of Cleaner Production*, *137*, 1313-1322.

Wang, K. T., & Shailer, G. (2017). Family ownership and financial performance relations in emerging markets. *International Review of Economics & Finance*, *51*, 82-98.

Warrad, L., Almahamid, S. M., Slihat, N., and Alnimer, M. (2013). The relationship between ownership concentration and company performance, a case of

Jordanian non-financial listed companies. *Interdisciplinary Journal of Contemporary Research in Business, 4*(9), 17-38.

Watts, R. L., & Zimmerman, J. L. (1990). Positive accounting theory: A ten-year perspective. *Accounting Review*, *65*(1), 131-156.

Waweru, N. (2014). Determinants of quality corporate governance in Sub-Saharan Africa: Evidence from Kenya and South Africa. *Managerial Auditing Journal*, *29*(5), 455-485.

Weir, C., & Laing, D. (2001). Governance structures, director independence and corporate performance in the UK. *European Business Review*, *13*(2), 86-95.

Wellalage, N. H., & Locke, S. (2012). Ownership structure and firm financial performance: Evidence from panel data in Sri Lanka. *Journal of Business Systems, Governance & Ethics*, *7*(1), 52-65.

Westphal, J.D., and Zajac, E.J. (1994). Substance and symbolism in CEO's long-term incentive plans. *Administrative Science Quarterly, 39*(1), 367-390.

Williamson, E. A. (1988). *Behavioural ecology of Western lowland gorillas in Gabon* (Unpublished doctoral dissertation). University of Stirling, Stirling, Scotland. Available at http://dspace.stir.ac.uk/handle/1893/1314#.WihUgkqnHIU

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics*, *105*(3), 581-606.

Wu, X., & Li, H. (2015). Board independence and the quality of board monitoring: Evidence from China. *International Journal of Managerial Finance*, *11*(3), 308-328.

Xiao, J. Z., Yang, H., & Chow, C. W. (2004). The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies. *Journal of accounting and public policy*, *23*(3), 191-225.

Yasser, Q. R., Entebang, H., &Mansor, S. A. (2011). Corporate governance and firm performance in Pakistan: The case of Karachi Stock Exchange (KSE)-30. *Journal of Economics and International Finance*, *3*(8), 482-491.

Yeon, K. H. (2016). Moderating effect of corporate governance structure between corporate social responsibility and performance. *Indian Journal of Science and Technology*, *9*(46), 1-7.

Yilmaz, C., &Buyuklu, A. H. (2016). Impacts of corporate governance on firm performance: Turkey case with a panel data analysis. *Eurasian Journal of Economics and Finance*, *4*(1), 56-72.

Yriopoulos, T., &Tsatsaronis, M. (2012). Corporate governance mechanisms and financial performance: CEO duality in shipping firms. *Eurasian Business Review*, *2*(1), 1-30.

Zabri, S. M., Ahmad, K., & Wah, K. K. (2016). Corporate governance practices and firm performance: Evidence from top 100 public listed companies in Malaysia. *Procedia Economics and Finance*, *35*, 287-296.

Zadeh, F. O., &Eskandari, A. (2012). Firm size as company's characteristic and level of risk disclosure: Review on theories and literatures. *International Journal of Business and Social Science, 3*(17), 9-17.

Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, *15*(2), 291-334.

Zaitul. (2010). Board of Directors, audit committee, auditor characteristics and the timeliness of financial reporting in listed companies in Indonesia (Doctoral dissertation, College of business, University Utara Malaysia) Retrieved from http://www.uum.edu.my.

Zhou, H., Owusu-Ansah, S., &Maggina, A. (2018). Board of directors, audit committee, and firm performance: Evidence from Greece. *Journal of International Accounting, Auditing and Taxation, 31*, 20-36.

Zondi, S., & Sibanda, M. (2015). Managerial ownership and firm performance on selected JSE listed firms. *Corporate Ownership & Control, 12*(3), 233-241.

Zraiq, M. A. A., &Fadzil, F. H. B. (2018). The impact of audit committee characteristics on firm performance: Evidence from Jordan. *Scholar Journal of Applied Sciences and Research, 1*(5), 39-42.

Zureigat, B. N. I. (2015). *Corporate governance and the going concern evaluation of Jordanian listed companies at Amman stock exchange* (Unpublished doctoral dissertation). Universiti Utara Malaysia, Sintok, Malaysia.

Zureigat, B. N., Fadzil, F. H., & Ismail, S. S. S. (2014). The relationship between corporate governance mechanisms and going concern evaluation: Evidence from firms listed on Amman Stock Exchange. *Journal of Public Administration and Governance*, *4*(4), 100-110.

Zureigat, Q. M. (2011). The effect of ownership structure on audit quality: Evidence from Jordan. *International Journal of Business and Social Science*, *2*(10), 38-46.

APPENDICES

Appendix A

Correlations

		BSIZ	BIND	CEO	BMET	MOW	IOW	FOW	FAOW	ACM	AUF	AUFS	FS	LAV	ROA	Tobin's Q	BOW
BSIZ	Pearson Correlation	1	-.280***	-.107	.001	.157**	.111*	-.033	.129**	.067	.207***	.172***	.426***	.059	-.021	-.090	.279***
	Sig. (2-tailed)		.000	.083	.991	.011	.071	.589	.036	.276	.001	.005	.000	.343	.738	.146	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
BIND	Pearson Correlation	-.280***	1	.086	.261***	-.018	-.057	.153**	-.071	.191***	.075	.139**	.048	.032	.399***	.321***	-.051
	Sig. (2-tailed)	.000		.165	.000	.766	.360	.013	.248	.002	.227	.024	.433	.606	.000	.000	.413
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
CEO	Pearson Correlation	-.107*	.086	1	.034	.293***	-.216***	.021	.044	.015	-.079	-.120*	-.092	-.144**	.222***	.163***	-.123**
	Sig. (2-tailed)	.083	.165		.580	.000	.000	.737	.479	.809	.198	.052	.136	.019	.000	.008	.046
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
BMET	Pearson Correlation	.001	.261***	.034	1	.037	.048	.009	-.069	.106*	.133**	.159***	.236***	.230***	.236***	.286***	.031
	Sig. (2-tailed)	.991	.000	.580		.550	.438	.879	.266	.085	.031	.010	.000	.000	.000	.000	.621
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
MOW	Pearson Correlation	.157**	-.018	.293***	.037	1	-.292***	-.013	.627***	.085	-.081	-.008	-.006	-.196***	.183***	.283***	.180***
	Sig. (2-tailed)	.011	.766	.000	.550		.000	.834	.000	.166	.189	.900	.926	.001	.003	.000	.003
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
IOW	Pearson Correlation	.111*	-.057	-.216***	.048	-.292***	1	.307***	-.382***	.122**	.489***	.307***	.345***	.124**	.007	-.104*	.590***
	Sig. (2-tailed)	.071	.360	.000	.438	.000		.000	.000	.048	.000	.000	.000	.044	.906	.092	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264

Correlations

		BSIZ	BIND	CEO	BMET	MOW	IOW	FOW	FAOW	ACM	AUF	AUFS	FS	LAV	ROA	Tobin's Q	BOW
FOW	Pearson Correlation	-.033	.153**	.021	.009	-.013	.307***	1	-.085	.154**	.291***	.205***	.177***	-.055	.316***	.211***	.250***
	Sig. (2-tailed)	.589	.013	.737	.879	.834	.000		.169	.012	.000	.001	.004	.376	.000	.001	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
FAOW	Pearson Correlation	.129**	-.071	.044	-.069	.627***	-.382***	-.085	1	.139**	-.280***	-.031	-.188***	-.290***	-.020	.200***	.251***
	Sig. (2-tailed)	.036	.248	.479	.266	.000	.000	.169		.024	.000	.614	.002	.000	.751	.001	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
ACM	Pearson Correlation	.067	.191***	.015	.106*	.085	.122**	.154**	.139**	1	.063	.135**	.154**	-.078	.422***	.233***	.164***
	Sig. (2-tailed)	.276	.002	.809	.085	.166	.048	.012	.024		.305	.029	.012	.209	.000	.000	.008
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
AUF	Pearson Correlation	.207***	.075	-.079	.133**	-.081	.489***	.291***	-.280***	.063	1	.487***	.637***	.247***	.128**	.170***	.233***
	Sig. (2-tailed)	.001	.227	.198	.031	.189	.000	.000	.000	.305		.000	.000	.000	.037	.006	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
AUFS	Pearson Correlation	.172***	.139**	-.120*	.159***	-.008	.307***	.205***	-.031	.135**	.487***	1	.348***	.023	.204***	.244***	.265***
	Sig. (2-tailed)	.005	.024	.052	.010	.900	.000	.001	.614	.029	.000		.000	.711	.001	.000	.000
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
FS	Pearson Correlation	.426***	.048	-.092	.236***	-.006	.345***	.177***	-.188***	.154**	.637***	.348***	1	.290***	.285***	.165***	.189***
	Sig. (2-tailed)	.000	.433	.136	.000	.926	.000	.004	.002	.012	.000	.000		.000	.000	.007	.002
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264

Correlations

		BSIZ	BIND	CEO	BMET	MOW	IOW	FOW	FAOW	ACM	AUF	AUFS	FS	LAV	ROA	Tobin's Q	BOW
LAV	Pearson Correlation	.059	.032	-.144**	.230***	-.196***	.124**	-.055	-.290***	-.078	.247***	.023	.290***	1	-.186***	.043	.001
	Sig. (2-tailed)	.343	.606	.019	.000	.001	.044	.376	.000	.209	.000	.711	.000		.002	.487	.985
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
ROA	Pearson Correlation	-.021	.399***	.222***	.236***	.183***	.007	.316***	-.020	.422***	.128**	.204***	.285***	-.186***	1	.463***	.056
	Sig. (2-tailed)	.738	.000	.000	.000	.003	.906	.000	.751	.000	.037	.001	.000	.002		.000	.364
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
Tobin's Q	Pearson Correlation	-.090	.321***	.163***	.286***	.283***	-.104*	.211***	.200***	.233***	.170***	.244***	.165***	.043	.463***	1	.133**
	Sig. (2-tailed)	.146	.000	.008	.000	.000	.092	.001	.001	.000	.006	.000	.007	.487	.000		.031
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264
BOW	Pearson Correlation	.279***	-.051	-.123**	.031	.180***	.590***	.250***	.251***	.164***	.233***	.265***	.189***	.001	.056	.133**	1
	Sig. (2-tailed)	.000	.413	.046	.621	.003	.000	.000	.000	.008	.000	.000	.002	.985	.364	.031	
	N	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264	264

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix B

OLS Regression Result

Dependent Variable: ROA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF[b]	.	Enter

a. Dependent Variable: ROA

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713[a]	.508	.482	.05422

a. Predictors: (Constant), LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.758	13	.058	19.834	.000[b]
	Residual	.735	250	.003		
	Total	1.493	263			

a. Dependent Variable: ROA

b. Predictors: (Constant), LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.215	.066		-3.271	.001
	BSIZ	-.002	.002	-.059	-1.081	.281
	BIND	.139	.031	.228	4.489	.000
	CEO	.022	.010	.107	2.159	.032
	BMET	.003	.001	.105	2.149	.033
	MOW	.163	.054	.187	2.994	.003
	IOW	-.030	.014	-.130	-2.242	.026
	FOW	.066	.016	.204	4.170	.000
	FAOW	-.099	.028	-.228	-3.493	.001
	ACM	.061	.010	.296	6.195	.000
	AUF	-.039	.018	-.143	-2.100	.037
	AUFS	.014	.008	.089	1.679	.094
	FS	.043	.008	.335	5.056	.000
	LAV	-.088	.018	-.241	-4.804	.000

a. Dependent Variable: ROA

Appendix C

OLS Regression Result

Dependent Variable: Tobin's Q

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF[b]	.	Enter

a. Dependent Variable: Tobin's Q
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.591[a]	.349	.315	.61634

a. Predictors: (Constant), LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.985	13	3.922	10.324	.000[b]
	Residual	94.969	250	.380		
	Total	145.954	263			

a. Dependent Variable: Tobin's Q
b. Predictors: (Constant), LAV, AUFS, BIND, MOW, ACM, FOW, CEO, BMET, BSIZ, IOW, FS, FAOW, AUF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.499	.747		-2.008	.046
	BSIZ	-.051	.020	-.160	-2.576	.011
	BIND	.880	.352	.146	2.499	.013
	CEO	.162	.115	.080	1.407	.161
	BMET	.047	.016	.164	2.932	.004
	MOW	1.362	.618	.158	2.204	.028
	IOW	-.398	.154	-.171	-2.574	.011
	FOW	.484	.179	.152	2.704	.007
	FAOW	.617	.322	.144	1.917	.056
	ACM	.257	.113	.125	2.277	.024
	AUF	.289	.209	.108	1.378	.170
	AUFS	.247	.094	.160	2.617	.009
	FS	.111	.096	.088	1.162	.246
	LAV	.280	.208	.078	1.345	.180

a. Dependent Variable: Tobin's Q

Appendix D

Hierarchical Moderated Regression Analysis Results.

DV: Return on Assets (ROA)

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	LAV, FS[b]	.	Enter
2	BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF[b]	.	Enter
3	BOW[b]	.	Enter
4	BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND[b]	.	Enter

a. Dependent Variable: ROA

b. All requested variables entered.

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.400[a]	.160	.153	.06933	.160	24.796	2	261	.000
2	.713[b]	.508	.482	.05422	.348	16.069	11	250	.000
3	.716[c]	.513	.485	.05406	.005	2.476	1	249	.117
4	.741[d]	.548	.515	.05246	.036	4.853	4	245	.001

a. Predictors: (Constant), LAV, FS

b. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF

c. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW

d. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW, BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND

e. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.238	2	.119	24.796	.000[b]
	Residual	1.254	261	.005		
	Total	1.493	263			
2	Regression	.758	13	.058	19.834	.000[c]
	Residual	.735	250	.003		
	Total	1.493	263			
3	Regression	.765	14	.055	18.703	.000[d]
	Residual	.728	249	.003		
	Total	1.493	263			
4	Regression	.819	18	.045	16.525	.000[e]
	Residual	.674	245	.003		
	Total	1.493	263			

a. Dependent Variable: ROA

b. Predictors: (Constant), LAV, FS

c. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF

d. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW

e. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW, BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.291	.055		-5.290	.000
	FS	.047	.008	.370	6.233	.000
	LAV	-.107	.022	-.293	-4.943	.000
2	(Constant)	-.215	.066		-3.271	.001
	FS	.043	.008	.335	5.056	.000
	LAV	-.088	.018	-.241	-4.804	.000
	BSIZ	-.002	.002	-.059	-1.081	.281
	BIND	.139	.031	.228	4.489	.000
	CEO	.022	.010	.107	2.159	.032

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
	BMET	.003	.001	.105	2.149	.033
	MOW	.163	.054	.187	2.994	.003
	IOW	-.030	.014	-.130	-2.242	.026
	FOW	.066	.016	.204	4.170	.000
	FAOW	-.099	.028	-.228	-3.493	.001
	ACM	.061	.010	.296	6.195	.000
	AUF	-.039	.018	-.143	-2.100	.037
	AUFS	.014	.008	.089	1.679	.094
3	(Constant)	-.229	.066		-3.467	.001
	FS	.044	.008	.344	5.192	.000
	LAV	-.092	.018	-.252	-4.987	.000
	BSIZ	-.003	.002	-.079	-1.424	.156
	BIND	.134	.031	.219	4.309	.000
	CEO	.021	.010	.104	2.118	.035
	BMET	.003	.001	.104	2.144	.033
	MOW	.153	.055	.176	2.802	.005
	IOW	-.053	.020	-.226	-2.688	.008
	FOW	.063	.016	.196	3.979	.000
	FAOW	-.124	.032	-.286	-3.825	.000
	ACM	.062	.010	.300	6.281	.000
	AUF	-.036	.018	-.134	-1.969	.050
	AUFS	.013	.008	.084	1.583	.115
	BOW	.035	.022	.118	1.573	.117
4	(Constant)	-.251	.065		-3.877	.000
	FS	.047	.009	.366	5.460	.000
	LAV	-.091	.018	-.249	-5.027	.000
	BSIZ	-.002	.002	-.075	-1.348	.179
	BIND	.163	.032	.266	5.044	.000
	CEO	.019	.011	.093	1.824	.069
	BMET	.003	.001	.117	2.437	.016
	MOW	.177	.055	.204	3.196	.002
	IOW	-.060	.019	-.255	-3.093	.002
	FOW	.059	.016	.184	3.804	.000
	FAOW	-.136	.032	-.314	-4.276	.000
	ACM	.060	.010	.287	6.178	.000

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
AUF	-.038	.018	-.139	-2.063	.040
AUFS	.013	.008	.083	1.593	.113
BOW	.037	.022	.126	1.685	.093
BOW*BSIZ	-.009	.004	-.120	-2.491	.013
BOW*BIND	-.011	.004	-.137	-2.718	.007
BOW*CEO	-.005	.003	-.077	-1.569	.118
BOW*BMET	-.006	.003	-.095	-2.042	.042

a. Dependent Variable: ROA

Appendix E

Hierarchical Moderated Regression Analysis Results.

DV: Tobin’s Q

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	LAV, FS[b]	.	Enter
2	BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF[b]	.	Enter
3	BOW[b]	.	Enter
4	BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND[b]	.	Enter

a. Dependent Variable: Tobin's Q

b. All requested variables entered.

Model Summary[e]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.165[a]	.027	.020	.73757	.027	3.645	2	261	.027
2	.591[b]	.349	.315	.61634	.322	11.252	11	250	.000
3	.608[c]	.369	.334	.60797	.020	7.927	1	249	.005
4	.635[d]	.403	.359	.59651	.033	3.417	4	245	.010

a. Predictors: (Constant), LAV, FS

b. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF

c. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW

d. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW, BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND

e. Dependent Variable: Tobin's Q

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.966	2	1.983	3.645	.027[b]
	Residual	141.988	261	.544		
	Total	145.954	263			
2	Regression	50.985	13	3.922	10.324	.000[c]
	Residual	94.969	250	.380		
	Total	145.954	263			
3	Regression	53.915	14	3.851	10.419	.000[d]
	Residual	92.038	249	.370		
	Total	145.954	263			
4	Regression	58.778	18	3.265	9.177	.000[e]
	Residual	87.176	245	.356		
	Total	145.954	263			

a. Dependent Variable: Tobin's Q

b. Predictors: (Constant), LAV, FS

c. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF

d. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW

e. Predictors: (Constant), LAV, FS, BIND, CEO, FOW, ACM, MOW, BMET, AUFS, BSIZ, IOW, FAOW, AUF, BOW, BOW*BMET, BOW*BSIZ, BOW*CEO, BOW*BIND

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.364	.586		-.622	.535
	FS	.210	.080	.166	2.607	.010
	LAV	-.019	.230	-.005	-.082	.935
2	(Constant)	-1.499	.747		-2.008	.046
	FS	.111	.096	.088	1.162	.246
	LAV	.280	.208	.078	1.345	.180
	BSIZ	-.051	.020	-.160	-2.576	.011
	BIND	.880	.352	.146	2.499	.013
	CEO	.162	.115	.080	1.407	.161

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	BMET	.047	.016	.164	2.932	.004
	MOW	1.362	.618	.158	2.204	.028
	IOW	-.398	.154	-.171	-2.574	.011
	FOW	.484	.179	.152	2.704	.007
	FAOW	.617	.322	.144	1.917	.056
	ACM	.257	.113	.125	2.277	.024
	AUF	.289	.209	.108	1.378	.170
	AUFS	.247	.094	.160	2.617	.009
3	(Constant)	-1.790	.744		-2.407	.017
	FS	.135	.095	.107	1.425	.155
	LAV	.201	.207	.056	.970	.333
	BSIZ	-.064	.020	-.202	-3.200	.002
	BIND	.775	.349	.128	2.217	.028
	CEO	.153	.114	.075	1.341	.181
	BMET	.047	.016	.163	2.951	.003
	MOW	1.164	.614	.135	1.896	.059
	IOW	-.852	.222	-.367	-3.839	.000
	FOW	.428	.178	.135	2.407	.017
	FAOW	.115	.364	.027	.317	.752
	ACM	.272	.111	.133	2.441	.015
	AUF	.337	.207	.126	1.624	.106
	AUFS	.231	.093	.150	2.474	.014
	BOW	.706	.251	.241	2.816	.005
4	(Constant)	-1.741	.735		-2.369	.019
	FS	.157	.097	.124	1.617	.107
	LAV	.246	.205	.068	1.200	.231
	BSIZ	-.076	.020	-.239	-3.740	.000
	BIND	.624	.366	.103	1.705	.090
	CEO	.105	.120	.052	.878	.381
	BMET	.056	.016	.195	3.527	.001
	MOW	1.590	.630	.185	2.525	.012
	IOW	-.798	.220	-.344	-3.625	.000
	FOW	.349	.177	.110	1.975	.049
	FAOW	-.031	.362	-.007	-.085	.932
	ACM	.258	.110	.126	2.351	.020
	AUF	.308	.207	.115	1.486	.138

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
AUFS	.208	.093	.135	2.241	.026
BOW	.662	.252	.226	2.631	.009
BOW*BSIZ	.030	.043	.039	.702	.484
BOW*BIND	.030	.048	.036	.627	.531
BOW*CEO	-.075	.036	-.120	-2.113	.036
BOW*BMET	-.104	.036	-.156	-2.918	.004

a. Dependent Variable: Tobin's Q

Appendix F

Jordanian Corporate Governance Code (2009)

Corporate Governance Code for Shareholding Companies Listed on the Amman Stock Exchange

CONTENTS

Preamble

Rules of corporate governance have become one of the most important issues discussed in the world economies. They present an important factor that reinforces the success of economic and organizational reforms currently undertaken in the context of globalization; openness of economies towards each other; global competition; and in light of conditions and requirements of international organizations for accepting membership to countries or for dealing with countries of the world and with institutions and markets of these countries. Applying these rules and principles has become a slogan for public and private sectors, and a tool for enhancing confidence in any national economy and an evidence of the existence of fair and transparent polices for protecting investors and traders alike. It is also an indication to the level of professional commitments reached by the companies managements towards good governance, transparency and accountability, the existence of measures to limit corruption, and consequently raise the economy's attractiveness to local and foreign investments and bolstering its competitiveness.

This guide was prepared in view of the development of the national economy at all levels, and in line with the Jordan Securities Commission (JSC)'s efforts to develop the national capital market and its regulatory and organizational framework. It contains rules of corporate governance for shareholding companies listed at Amman Stock Exchange (ASE) for the purpose of establishing a clear framework that regulates their relations and management and defines their rights, duties and responsibilities in order to realize their objectives and safeguard the rights of all stakeholders. These rules are based principally on a number of legislations, mainly the Securities Law and related regulations, the Companies Law, and the international principles established by the Organization of Economic Cooperation and Development (OECD).

It should be noted that many of these rules are based on binding legal provisions in the above-mentioned laws. The rules did not delve in detail in many of the issues and requirements that they addressed. Instead, a general rule was established and the details were left to the relevant legislation. For instance, details of the information required in the company's annual report were not specified in the guide; these required details were left for the Instructions of Issuing Companies Disclosure, Accounting and Auditing Standards.

It was decided that the application of these rules would initially be through "compliance or explain" approach, which means that companies must comply with the rules of the guide, and in case of non compliance with any of these rules, other than those based on a legal provision that is binding under responsibility, it would be necessary to explain clearly the reason for non compliance in the company's annual report. This approach is intended to give companies flexibility in implementing the corporate governance rules and sufficient time to adapt to them, in order to enhance awareness of these rules and to achieve full compliance gradually.

It is hoped that the managements of shareholding companies listed on the ASE would implement these rules, and that all stakeholders would encourage their implementation in order to build confidence in these companies through enhancing their management performance, and preserving the rights of all stakeholders, which in turn would enhance the performance of our national economy, and increase confidence in it and in the investment climate.

Chapter One - Definitions

The Company: A shareholding company listed on the ASE.

Relatives: The father, mother, brother, sister, spouse, and children.

Independent Member: A member of the board of directors who is not tied to the company or any of its upper executive management, affiliate companies, or its external auditors by any financial interests or relationships other than his shareholding in the company that may be suspected to bring that member benefit, whether financial or incorporeal, or that may affect his/ her decisions or lead to exploitation of his/ her position with the company.

The board member loses his independence in any of the following cases:

1. If he is, or has been, employed by the company or any of its affiliates during the last three years preceding his nomination for membership of the board of directors.

2. If any of his relatives is, or has been, employed in the executive management of the company or any of its affiliates during the last three years preceding his nomination for membership of the board.

3. If he or any of his relatives has direct or indirect interest in the contracts, projects and engagements signed with the company or any of its affiliates to the value of JD 50,000 (fifty thousand Jordanian Dinars) or more.

4. If the member or any of his relatives is a partner of the company's auditor, or if he is or has been a partner or employee of the company's external auditor during the last three years preceding his nomination for membership of the board.

5. If the member has a control in the company of more than 10% of the company's capital.

Non-Executive Board Member: A member who is not employed by, and who does not receive a salary from the company.

Related Party Transactions: Any deal or contract the value of which exceeds JD 50,000 (fifty thousand Jordanian Dinars) made between the company and any of the following parties:

1. The company's affiliate companies.

2. Members of the board of directors and upper executive management of the company.

3. Members of the board of directors or the management committee, upper management, and upper executive management of the affiliate company.

4. Any person who holds more than 5% of the shares of the company or one of its affiliates.

5. Relatives and partners of the above parties.

6. Saving funds of the company's employees.

7. The company's joint ventures with any other parties.

8. Companies under control of members of the board of directors and the upper executive management and their relatives.

Cumulative Voting: When each shareholder holds a number of votes equal to the number of shares that he owns, and he uses them to vote for one candidate for membership of the board of directors or distributes them among the candidates of his choice, without repeating these votes.

Stakeholders: Persons who have vested interests in the company, including its shareholders, employees, creditors, suppliers, and prospective investors.

Committees: Permanent committees formed by the board of directors, namely; the Nominations and Compensations Committee, and Audit Committee.

Insider at the Company: A person who has access to internal information by virtue of his position or function within the company, including the chairman and members of the board of directors and the company's general manager, financial manager and internal auditor, the representative of the legal person, and relatives of the above- mentioned persons.

Chapter Two: The Board of Directors of a Shareholding Company

1. The administration of the Company is entrusted to a board of directors whose members shall be not less than five and not more than thirteen, as determined by the Company's memorandum of association. Principles of good corporate governance require that board members be elected by the company's general assembly in a secret ballot, by means of cumulative voting system, provided that at least one third of the board members are independent members. If the result in calculating the above- mentioned third is with a fraction, the fraction is removed by rounding the result to the following figure.

2. The board of directors shall manage the company for the period specified in the company's memorandum of association, provided that this period must not be less than three years and not more than four years starting on the date of its election.

3. A legal board member person shall name a natural person to represent him during the board's term of office.

4. The board of directors represents all shareholders. It should exercise due professional care in managing the company, and devote the time needed to carry out its activities in honesty and transparency in order to serve the company's interests and realize its objectives.

5. It is not allowed for one person to hold the positions of chairman of the board of directors and any executive position in the company at the same time.

6. Member of the board of directors should be qualified and enjoys adequate knowledge and experience in administrative affairs. He should also be aware of relevant legislation and of the rights and duties of the board.

7. A member of the board of directors or his representative should not be a member of the board or a representative of a member of the board of directors of another company that has similar business, has identical objectives, or is a competitor thereof. In all cases, a natural person must not combine membership of the boards of more than five companies whether in his personal capacity or as a representative of a legal person.

8. The company is not allowed to provide a cash loan of any kind to the chairman or any member of the board of directors or to any of their relatives. Excluded from this condition are banks and financial companies that may advance loans to any of the aforesaid persons within the limits of these companies' objectives and in accordance with the same conditions that apply to all customers.

9. The company shall provide members of the board of directors with all information and data related to the company, to enable them to perform their duties and to be aware of all aspects related to the company's work.

10. The board of directors shall ensure that members of the executive management have the administrative and technical qualifications and experience that they need to carry out their duties.

11. The board may seek the opinion of any external consultant at the company's expense provided that the majority of board members approve the measure and that there is no conflict of interests.

12. The chairman of the board of directors or any board member or the company's general manager or its auditor is required, under legal responsibility, to notify the supervisory authorities concerned in any of the following cases:

A. If the company suffers financial or administrative disorders or if it suffers serious losses that affect the rights of its shareholders or creditors.

B. If the company's board of directors or any board member or the company's general manager exploits his/their powers and position/s in any manner that derives benefit to him/ them or to others in an illegal manner. This provision shall apply equally should any of the above refrain from carrying out this an activity that is required by law.

C. If the company's board of directors or any board member or the company's general manager perform any act that implies fraud, embezzlement, misrepresentation, forgery or betrayal of confidence in a manner that affects the rights of the Company, its shareholders or others.

Section One: Board of Directors Tasks and Responsibilities

The board of directors shall set an internal by-law to be reviewed annually, which defines in details the duties, powers, and responsibilities of the board of directors, including:

1. Setting strategies, policies, plans and procedures that realize the objectives of the company, serve its interests, maximize the rights of its shareholders, and serve the local community.

2. Setting necessary procedures to ensure that all shareholders, including non-Jordanians, enjoy their full rights and that they are treated in justice and equality without any discrimination.

3. Taking necessary measures to ensure compliance with the laws in force.

4. Setting a risk management policy to address the risks that the company may face.

5. Organizing the company's financial, accounting and administrative affairs by means of special internal regulations.

6. Preparing annual, semiannual and quarterly reports and annual preliminary results on the company's activities, including financial statements for each period in accordance with the laws in force. Dates of disclosure of these financial statements should be announced at least before three working days.

7. Setting the company's disclosure and transparency policy, and overseeing its implementation in accordance with the requirements of the regulatory authorities and the laws in force.

8. Setting procedures that forbid insiders in the company from using inside information to achieve material or moral gains.

9. Setting a clear authorization policy for the company identifying the authorized personnel and the limits of the powers entrusted to them.

10. Appointing the company's general manager and terminating his services.

11. Defining duties and powers of the company’s executive management.

12. Taking necessary steps to ensure internal supervision on the company’s work in progress, including ensuring compliance with the laws in force, the requirements of supervisory authorities, policies, plans and procedures set by the board of directors.

13. Reviewing and evaluating the performance of the company’s executive management, and the degree to which it implements the strategies, policies, plans and procedures in force.

14. Setting a mechanism for receiving shareholders' complaints and suggestions, including those related to listing certain items on the agenda of the general assembly meeting, in a manner that would ensure that they are studied and that proper action is taken on them within a certain period of time.

15. Adopting criteria for granting incentives, compensations, and privileges to members of the board of directors and executive management, in a manner that serves the company’s interests and realizes its objectives.

16. Setting a policy to organize relations with stakeholders in a manner that ensures fulfillment of the company’s commitments towards them, safeguards their rights, provides them with adequate information, and maintains good relations with them.

17. Setting written procedures for implementing the rules of good corporate governance in the company and reviewing them annually to evaluate the degree to which they are implemented.

Section Two: Committees Formed by the Board of Directors

1. The board of directors shall form the following permanent committees:

A. The Audit Committee, whose tasks are defined under the "Disclosure and Transparency Chapter."

B. The Nominations and Compensations Committee, whose main tasks are:

I. Ensuring the independence of independent members on a continuous basis.

II. Setting the policy of compensations, privileges, incentives, and salaries and to review them on a yearly basis.

III. Defining the company's needs of qualifications at the upper executive management and employees levels, and the criteria for their selection.

IV. Drawing the company's human resources and training policy, monitoring its implementation, and reviewing it on an annual basis.

2. The committees shall be composed of not less than three non-executive members of the board of directors, at least two of whom must be independent members and one of the two independent members must preside over the committee.

3. The committees with the approval of the board of directors shall set written procedures that regulate their activities and define their duties.

4. The committees above- mentioned shall make their decisions and recommendations by an absolute majority vote by their members.

5. The committees shall submit their reports and recommendations to the board of directors, and a report on their activities to the company's general assembly annual meeting.

6. The committees shall enjoy the following powers:

A. Requesting any information from the company's employees who should cooperate in providing this information fully and accurately.

B. Seeking legal, financial, administrative or technical advice from any external consultant.

C. Requesting the presence of any employee to provide the committee with more clarifications.

7. The board of directors may form committees to carry out specific tasks for limited periods of time in accordance with procedures that define issues related to the committee such as its mandate, duration and powers.

Section Three: Meetings of the Board of Directors

1. The board of directors shall be convened to meet by a written invitation from its chairman or by a written request submitted to the chairman by at least one-quarter of the board members, in the presence of the absolute majority of board members.

2. Voting on the board of directors' decisions shall be in person. Voting by proxy, by correspondence, or by any other indirect manner shall not be permitted.

3. Decisions of the board of directors shall be adopted by an absolute majority of members present at the meeting.

4. The board of directors shall meet at least once every two months, provided that the number of meetings in the fiscal year must not be less than six.

5. The board of directors shall appoint the secretary of the board who shall record minutes of board meetings and its decisions, as well as the list of members present and any reservations that they express in a special sequentially numbered register.

Chapter Three: General Assembly Meetings

1. The general assembly is composed of all shareholders who have the right to vote.

2. The general assembly shall hold an ordinary meeting at least once a year, provided that it takes place within the four months following the end of the company's fiscal year. The general assembly may also hold an extraordinary meeting at any time in accordance with the legislations in force.

3. The board of directors shall address an invitation to each shareholder to attend the general assembly meeting, which should be delivered either by hand, or ordinary mail and e-mail to the shareholder at least twenty one days before the date set for the meeting. Appropriate preparations should be made for the meeting, including the choice of time and place, in a manner that encourages and helps the largest possible number of shareholders to attend.

4. The invitation to the meeting should specify the place and time of the meeting. It should be accompanied by the agenda of the meeting which should include in detail and clear manner topics to be addressed, in addition to any documents or attachments related to these subjects. The rules of good corporate governance for

companies require that no new topic should be addressed at the meeting that was not listed on the agenda sent previously to the shareholders.

5. A shareholder who wishes to nominate himself for membership of the board of directors shall send his CV prior to the end of the fiscal year preceding the year in which the meeting of the general assembly would meet to elect the board. The board shall attach this CV to the invitation to the general assembly meeting that it addresses to shareholders.

6. The board of directors shall announce the date and place of the general assembly meeting at least twice in three local daily newspapers and on the website of the company.

7. A shareholder may deputize another shareholder to attend the general assembly meeting in his place, by means of a written proxy authorization, or to deputize another person by means of a judicial proxy in accordance with the legislations in force.

8. The chairman of the board or, in his absence the vice-chairman shall preside over the general assembly meeting. Should they both be absent, the general assembly elects a chairman for the meeting. The number of board members present at the general assembly meeting must not be less than the number required to constitute a legal quorum for any board meeting.

9. The general assembly meeting shall be directed in a manner that allows shareholders to participate effectively, express their opinions freely, receive answers to their questions, and provide them with sufficient information that enables them to take their decisions.

Chapter Four: Shareholders' Rights

The company shall take appropriate measures to ensure that shareholders enjoy their rights in a manner that would achieve justice and equality without discrimination. These rights include mainly:

Section One: General Rights

1. The company shall maintain shareholders ownerships records containing information including their names, number of shares they hold, any restrictions on ownerships, and any changes that occurred to such.

2. Access to shareholder records related to any shareholder for any reason whatsoever, and to the complete record for reasonable cause.

3. Access to information and documents of the company in accordance with the laws in force.

4. Receiving periodic and non-periodic information that is disclosed in accordance with legislations in force.

5. Participating and voting in general assembly meetings in person or by proxy with a number of votes equal to the number of shares that he holds in the company.

6. Receiving annual dividends within thirty days from the date of the decision taken by the general assembly to distribute them.

7. Priority to subscribe in any new share issuance by the company, before these shares are offered to other investors.

8. Filing a lawsuit against the board of directors or any of its members claiming compensation for damages incurred as a result of a violation of the legislations in

force or of the company's memorandum of association or any mistake or negligence in administering the company, or of disclosure of company secrets.

9. Filing a lawsuit against the company's general manager or any of the company's employees claiming compensation for damages incurred as a result of disclosing the company's secrets.

10. Requesting an extraordinary general assembly meeting by shareholders who hold 25% of the company's subscribed shares.

11. Requesting an extraordinary general assembly meeting by shareholders holding 20% of the company shares to request the resignation of the chairman of the board of directors or any board member.

12. Requesting the audit of the company's activities and records by shareholders holding 10% of the company shares.

13. Filing a lawsuit to contest the legality of any general assembly meeting or to contest the decisions taken in that meeting within three months of the meeting.

14. Access to the minutes of the company's general assembly meetings.

Section Two: Rights within the powers of the General Assembly

The General Assembly enjoys wide powers, particularly the power to take decisions affecting the future of the company, which include:

1. Discussing the company's performance and its plans for the coming period with the board of directors.

2. Electing members of the board of directors.

3. Electing the external auditor.

4. Approving the financial statements of the company.

5. Amending the articles of association and memorandum of association of the company, particularly provisions related to the change in its objectives.

6. Issues related to merger, incorporation or liquidation of the company.

7. Dismissing the board of directors, the chairman or any board member.

8. Selling the company or acquiring another company.

9. Raising or lowering the company’s capital.

10. Issuing corporate bonds convertible to shares.

11. Enabling the employees to own the company's shares.

12. Purchasing or selling the company’s shares.

13. Selling the company’s assets in full or a significant portion of the assets that might affect the realization of the company’s objectives.

Chapter Five: Disclosure and Transparency

1. The company shall establish written work procedures in accordance with the disclosure policy adopted by the board of directors to regulate disclosure of information and follow up on the implementation of the policy in accordance with the requirements of the regulatory authorities and the legislations in force.

2. The company shall provide shareholders and investors with accurate, clear, timely disclosure information, in accordance with the requirements of the supervisory authorities and the legislations in force, in a manner that would enable them to take their decisions. This includes disclosures related to:

- Periodic reports.

- Material information.

- Dealings of insiders and their relatives in securities issued by the company, including members of the board of directors and upper executive management.

- Related party transactions.

- The privileges of members of the board of directors and upper executive management.

3. The company shall organize its accounts and keep its books and records in accordance with the International Financial Reporting Standards (IFRS).

4. The company shall use its internet web-site to enhance disclosure and transparency, and to provide information.

5. The company shall disclose its policy regarding the local community and the environment.

6. No insider in the company may disclose inside information related to the company to parties other than the authorities concerned or the judiciary. It is not allowed to trade in securities issued by the company or to urge others to trade in them based on inside or secret information, to achieve financial or incorporeal benefit.

Section One: The Audit Committee

1. All members of the Audit Committee must have knowledge and experience in finance and accounting, and at least one of them must have worked previously in accounting or finance fields, and that person must have an academic or professional certificate in accounting, finance or related fields.

2. The Committee shall meet regularly, not less than four times a year, and minutes of its meetings must be taken appropriately.

3. The company shall put at the disposal of the Committee all facilities that it needs to perform its duties, including the authority to seek expert assistance whenever needed.

4. At least once a year, the Audit Committee shall meet with the company's external auditor, without the presence of the executive management or any person representing it.

Section Two: Duties of the Audit Committee

The Audit Committee shall undertake the task of overseeing and monitoring accounting and internal control and auditing activities in the company, including the following:

1. Discussing matters related to the nomination of the external auditor to ensure that he meets all the requirements stipulated in legislations in force, and to ensure his independence.

2. Discussing matters related to the work of the external auditor, including his, observations, suggestions, and reservations, pursuing the level of responsiveness of

the company’s management to them, and submitting recommendations to the board of directors accordingly.

3. Reviewing the company’s correspondence with the external auditor, evaluating its contents, and providing comments and recommendations thereabout to the board of directors.

4. Monitoring the company's compliance with Laws and regulations in force, and the requirements of regulatory institutions.

5. Studying periodic reports prior to their presentation to the board of directors, and submitting recommendations thereabout, with emphasis on:

A. Any change in the company’s accounting policies.

B. Any change in the company's accounts as a result of the auditing processes or the suggestions of the external auditor.

6. Studying the external auditor's plan of work, and ensuring that the company provides him with all facilities needed to perform his work.

7. Studying and evaluating the internal control and auditing procedures.

8. Reviewing the external auditor’s evaluation of internal control and auditing procedures

9. Reviewing the external auditor’s reports, particularly those related to any violations revealed by the internal auditor.

10. Submitting recommendations to the board of directors regarding internal audit procedures and the work of the external auditor.

11. Ensuring that no conflict of interest may arise from the company's transactions, contracts or projects with related parties.

12. Reviewing and approving related party transactions prior to their ratification by the company.

13. Any other issues determined by the board of directors.

Section Three: Powers of the Audit Committee

1. Requesting the presence of the external auditor if the Committee sees the need to discuss with him any issues related to his work at the company. It also has the authority to request clarifications or to seek his opinion in writing.

2. Submitting recommendations to the board of directors to nominate the external auditor for election by the general assembly.

3. Nominating a candidate to be appointed as the company's internal auditor.

Section Four: The External Auditor

1. The general assembly shall elect one or more licensed auditor/s to perform an external audit of the company in accordance with the international auditing standards, the requirements and rules of the profession, and the legislations in force.

2. The external auditor shall exercise his duties for one-year renewable, provided that the renewal for the partner at the external auditor may not be for more than four consecutive years, and the re-election may not take place before a minimum of two years.

3. The company shall take appropriate actions to ensure the following:

A. The company’s external auditor is not a founder, a shareholder, a member of its board of directors, or a partner or an employee of any member of the board of directors.

B. The external auditor does not perform any additional services to the company such as administrative or technical consultations.

C. The external auditor is independent in accordance with international auditing standards.

D. The external auditor performs his duties impartially without interference from the board of directors or the executive management.

4. The company is not allowed to appoint any employee of the external auditor office in the company’s upper management before at least one year from the date of his employment termination at the auditor's office.

5. The company’s external auditor should:

A. Possess a valid license to practice the profession.

B. Be a member of the Jordan Association of Certified Public Accountants.

C. Have practiced the profession on a full time basis for at least three consecutive years, after receiving his license to practice the auditing profession.

D. Have in his firm at least one partner or employee who must also meet the above-mentioned requirements.

6. External auditor's duties:

A. Performing the duties assigned to him in impartiality and independence.

B. Monitoring the company’s operations.

C. Auditing the company’s accounts in accordance with international standards and the accepted profession rules.

D. Examining the financial, administrative, and internal auditing systems of the company and submitting his opinion on their effectiveness and ensuring their suitability for the company's business and safeguarding of its assets.

E. Verifying ownership of the company’s assets and the legality of its obligations.

F. Attending meetings of the company’s general assembly.

G. Answering questions and inquiries from shareholders with regard to the financial statements and closing accounts, at the general assembly meetings.

H. Expressing opinion on the fairness of the company’s financial statements, and to ask for their amendment if there is anything that affects their fairness.

I. Reporting to the authorities concerned any violation of the law, or any financial or administrative issues that affect the company’s situation negatively.

Appendix G

How ownership variables are calculated for **AL-EKBAL PRINTING AND PACKAGING CO.** annual report 2016 (p.20).

Number of shares owned by members of the Board of Directors and senior management executives and their relatives

Board of Directors:

Name	Position	Nationality	Representative	Representative Nationality	Number of Shares as in 31.Dec.2016	Number of Shares as in 31.Dec.2015
Mayr Melnhof Packaging Austria GmbH	Chairman of Board	Austrian	Mr. David Silhavy	Austrian	1.036.624	1.474.464
Neupack Gesellschaft GmbH	Vice Chairman	Austrian	Eng. Adel Abou Dargham (Up to 11 January 2017)	Lebanese	700.000	1.000.000
Mayr Melnhof Packaging International GmbH	Member of Board of Directors	Austrian	Mr. Wilhelm Hoermanseder	German	1,297,470	1.856.103
Mr. Anwar Sukkari	Member of Board of Directors	Austrian	Mr. Anwar Sukkari	Jordanian	5.000	5.000
MM Graphia Beteil und Verw. GmbH	Member of Board of Directors	German	Mr. Wolfgang Roth	German	5.000	5.000

Senior Management:

Name	Position	Nationality	Number of Shares as in 31.Dec.2016	Number of Shares as in 31.Dec.2015
Eng. Adel Abou Dargham	General Manager	Lebanese	-	-
Mr. Khaireddin Shukri	Deputy GM (Starting from 26 November 2016)	Jordanian	-	-
Mr. Ibrahim Hasan	Finance Manager	Jordanian	-	-
Mr. Fayek Abou Seif	Pre-press & Technical Clearance Manager	Jordanian	-	-
Eng. Mustafa Shahin	Maintenance Manager	Jordanian	-	-
Mr. Ismael Mteir	Production Manager	Jordanian	-	-
Mr. Abdallah Al Majali	Administrative Manager	Jordanian	-	-
Mr. Yahya Khalaf	Quality Manager	Jordanian	-	-

Managerial ownership is calculated as the proportion of the firm's shares owned by the managers over the total number of shares outstanding.

	MOW
	0
	0
	0
	0
	0
	0
	0
	0
Total	0
Outstanding	3,500,000
%	**0**

Institutional ownership measured by percentage of shares owned by institutions to the total number of shares issued.

	IOW
	1,035,624
	700,000
	1,297,470
	5,000
Total	3,038,094
Outstanding	3,500,000
%	**0.87**

Foreign ownership measured by percentage of shares owned by foreigners to the total number of shares issued.

	FOW
	1,035,624
	700,000
	1,297,470
	5,000
Total	3,038,094
Outstanding	3,500,000
%	**0.87**

Family ownership measured by percentage of shares owned by families to the total number of shares issued.

	FAOW
	0
	0
	0
	0
Total	0
Outstanding	3,500,000
%	**0**

Board ownership is measured by the proportion of shares owned by directors over the total number of shares outstanding.

	BOW
	1,035,624
	700,000
	1,297,470
	5,000
	5,000
Total	3,043,094
Outstanding	3,500,000
%	**0.87**

Appendix H

How ownership variables are calculated for **PETRA EDUCATION COMPANY,** annual report 2016 (p.22).

Number of shares owned by members of the Board of Directors and senior management executives and their relatives

Board of Directors:

Name	**Position**	**Nationality**	**Number of Shares as 31.Dec.2016**
Jordan Islamic Bank	Chairman of Board	Jordanian	2.472.054
Awni& Bashar Shaker Co. Ltd.	Vice Chairman	Saudi	2.184.206
Mohammed Reda Al - Ansari	Member of Board of Directors/ CEO	Jordanian	4.461.021
First Education Co.	Member of Board of Directors	Kuwait	1.500.000
EssamJouhar Ali Al Jamali	Member of Board of Directors	Jordanian	788.015
Mousa Mousa El Moati	Member of Board of Directors	Jordanian	450.000
Khalil Saleh ArefAzouqa	Member of Board of Directors	Jordanian	114.000
Awny Fouad Hussein Al - Masri	Member of Board of Directors	Jordanian	40.000
Mohammed Mazen Al - Ansari	Member of Board of Directors	Jordanian	30.000
AL-Amin Investment Co.	Member of Board of Directors	Jordanian	243.200
Samaha Company	Member of Board of Directors	Jordanian	10.000

Senior Management

Name	**Position**	**Nationality**	**Number of Shares as 31.Dec.2016**
Mohammed Reda Al - Ansari	Chief Executive Officer	Jordanian	4.461.021

Managerial ownership is calculated as the proportion of the firm's shares owned by the managers over the total number of shares outstanding.

	MOW
	4461021
Total	4461021
Outstanding	16000000
%	**0.28**

Institutional ownership measured by percentage of shares owned by institutions to the total number of shares issued.

	IOW
	2472054
	2184206
	1500000
	243200
	10000
Total	6409460
Outstanding	16000000
%	**0.40**

Foreign ownership measured by percentage of shares owned by foreigners to the total number of shares issued.

	FOW
	2184206
	1500000
Total	3684206
Outstanding	16000000
%	**0.23**

Family ownership measured by percentage of shares owned by families to the total number of shares issued.

	FAOW
	4461021
	30000
Total	4491021
Outstanding	16000000
%	**0.28**

Board ownership is measured by the proportion of shares owned by directors over the total number of shares outstanding.

	BOW
	2472054
	2184206
	4461021
	1500000
	788015
	450000
	114000
	40000
	30000
	243200
	10000
Total	12292496
Outstanding	16000000
%	**0.77**